TIRUPPUR MASTER PLAN 2041

DIRECTORATE OF TOWN AND COUNTRY PLANNING

TIRUPPUR LOCAL PLANNING AREA
Master Plan - 2041

DRAFT MASTER PLAN

Directorate of Town and Country Planning

MASTERPLAN FOR TIRUPPUR LPA

L.P.A. Reference No.
Tiruppur District Office : ROC No. 1170/2013

D.T.C.P. Reference No. : ROC No. 13188/2017/TCP3

Master Plan for : Tiruppur Local Planning Area

Tiruppur Local Planning Area : Consented in G.O. (Ms). No.
Housing and Urban Development
Department Dt.

9/1/24

Member Secretary / Assistant Director
Tiruppur Local Planning Authority / District Town and Country Planning
Tiruppur District

09/01/24

Assistant Director
Directorate of Town and Country Planning
Chennai

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Joint Director
Directorate of Town and Country Planning
Chennai

Director
Directorate of Town and Country Planning
Chennai

K. Sumathy

for **SECRETARY TO THE GOVERNMENT**
Housing and Urban Development Department
Government of Tamil Nadu

PROFORMA

Name of the Office
Office, : District Town and Country Planning Tiruppur District

Name of the LPA : Tiruppur Local Planning Authority

I. **PROPOSAL**

1. Letter No and date of DTCP in which Proposals submitted to Government :

II. **NOTIFICATION**

2. The G.O.details of Notification Under Section 10(I): G.O. (Ms) No. H & UD dt.

3. The G.O.details which confirmation Was ordered under Section 10(4) : G.O. (Ms) No. H & UD dt.

4. The G.O.details of Notification Under Section 10(I) (b) : G.O. (Ms) No. 158 H & UD dt. 12.07.2012

5. The G.O.details which confirmation Was ordered under Section 10(4) : G.O. (Ms) No. 306 H & UD dt. 31.12.2013

III. **CONSTITUTION**

6. The G.O. details in which Tiruppur appointment of members :

IV. **CONSENT**

7.The G.O.details in which the Government accorded consent under Section 24(2) :

V. **PUBLICATION**

8. Notification in form No. I in the Tamil Nadu Government Gazette Under Section 26. :

9. Notification in form No. I in District Gazette under Section 26(1). :

10. Letter No and date in which Director of Town and Country Planning has given advice on O&S under Section 26(2). :

11. Resolution No and date in which the Tiruppur LPA approved the Draft Master plan :

VI. APPROVAL

12. Submission of master plan to Government for final approval Under section 28. :

13. The G.O. details in which Government accorded its Approval under section 28. :

VII. PER PUBLICATION DETAILS OF APPROVAL IN

14. The Tamil Nadu Government Gazette: Under section 30.

15. The notice board of the Local Body :

16. One or more leading daily Newspaper Circulation in the Tiruppur Local Planning :

9/1/24

Member Secretary / Assistant Director
Tiruppur Local Planning Authority /
District Town and Country Planning
Tiruppur District

TIRUPPUR LOCAL PLANNING AREA
Master Plan - 2041

CERTIFICATE

It is certified that,

- All the procedures prescribed in the Master Plan are prepared, published and sanctioned.
- The Boundary of Tiruppur Local Planning Area is reframed.
- Reports with the Master Plan are annexed and authenticated.
- The Categorisation in zoning map and the categorization in zoning regulation are tallied and found correct.
- The numbers found missing are duly acknowledged and verified by the concerned department.

9/1/24

Member Secretary / Assistant Director
Tiruppur Local Planning Authority /
District Town and Country Planning
Tiruppur District

GIS BASED MASTER PLAN FOR TIRUPPUR CLPA

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LIST OF ABBRIVIATIONS AND ACRONYMS

AMRUT	Atal Mission for Rejuvenation and Urban Transformation
CBA	Continuous Build-up Area
CBD	Central Business District
CMP	Comprehensive Mobility Plan
CDP	City Development Plan
CPCD	Central Pollution Control Board
CPHEEO	Central Public Health and Environmental Engineering Organization
CWSS	Combined Water Supply Scheme
DEWATS	Decentralized Waste Water Treatment Systems
DTCP	Directorate of Town and Country Planning
ECS	Equivalent Car Space
FAR	Floor Area Ration
FSI	Floor Space Index
GDP	Gross Domestic Product
GIS	Geographic Information System
ISWM	Integrated Solid Waste Management
ITI	Industrial Training Institute
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
LOS	Level of Service
LPA	Local Planning Area
LPCD	Litres Per Capita per Day
MCM	Million cubic meters
MLD	Million Litres per Day
MOEF	Ministry of Environment and Forest
MP	Master planning
MSW	Municipal Solid Waste
NBC	National Building Code
NDVI	Normalized Difference Vegetation Index
NEERI	National Environmental Engineering Research Institute

NH	National Highway
OHT	Over Head Tank
PCU	Passenger Car Unit
PMAY	Pradhan Mantri Awas Yojana
PPH	Person per Hectare
P&SP	Public and Semi Public PPH Persons per Hectare
PVC	Polyvinyl Chloride
RADPFI	Rural Area Development Plan Formulation and Implementation
RCC	Reinforced Cement Concrete
ROW	Right of Way
RTF	Right of Education
SC	Scheduled Caste
SH	State Highway
SIPCOT	State Industries Promotion Corporation of Tamil Nadu Ltd.
SOI	Survey of India
ST	Scheduled Tribes
STP	Sewage Treatment Plant
TANSIDCO	Tamil Nadu Small Industries Development Corporation Limited
TCMC	Tiruppur City Municipal Corporation
TNCDBR	Tamil Nadu Combined Development Building Rules
TNUHDB	Tamil Nadu Urban Habitat Development Board
TNUIFSL	Tamil Nadu Urban Infrastructure Financial Services Limited
TNPCB	Tamil Nadu Pollution Control Board
TP	Town Panchayat
TPD	Tonnes Per Day
TWAD	Tamil Nadu Water Supply and Drainage Board
ULB	Urban Local Body
URDPFI	Urban and Regional Development Plans Formulation and Implementation

WHO	World Health Organisation
WTP	Water Treatment Plant

01

INTRODUCTION

1 INTRODUCTION

1.1 BACKGROUND

1.1.1 Need of Master Plan

A master plan is a dynamic long-term planning document that provides a conceptual layout to guide future growth and development. Master planning is about making the connection between buildings, social settings, and their surrounding environments. A master plan includes analysis, recommendations, and proposals for a site's population, economy, housing, transportation, community facilities, and land use. It is based on public input, surveys, planning initiatives, existing development, physical characteristics, and social and economic conditions.

Master planning can assume some or all of these roles:

- Develop a phasing and implementation schedule and identify priorities for action
- Act as a framework for regeneration and attract private sector investment.
- Conceptualize and shape the three-dimensional urban environment.
- Define public, semiprivate, and private spaces and public amenities.
- Determine the mix of uses and their physical relationship.
- Engage the local community and act as builder of consensus.

As city regeneration initiatives are generally long-term propositions, it is important to consider the master plan as a dynamic document that can be altered based on changing project conditions over time. These changes sought to either allow for more density and height in some areas, or to restrict and lower the height of the buildings—including the definition of areas under patrimonial protection. This flexibility has been beneficial to the real estate sector, enabling increases in the number of floors and housing units per building.

Master plans can have an important role in determining the shape of the urban environment. If not well conceived, they can lead to problems in the future. For instance, one of the criticisms of Santiago's master plan was that it was too flexible in setting standards for beautification and building volume design. Hence, the quality of these buildings in terms of architectural design

and construction materials was considered one of the weaknesses of the repopulation program (see photograph). The residents also criticized the unpleasant contrast of the high tower buildings with the existing historic urban fabric, as well as the fact that the new towers are not well integrated within the traditional neighbourhoods. All of these issues could have been addressed well in advance as part of the master plan.

1.1.2 Master Plan preparation - Provision under TCP Act, 1971

As soon as may be, after the declaration of a local planning area under section 10 and after the constitution of the appropriate planning authority under section 11, the local planning authority shall, within such time as may be prescribed and after consulting the regional planning authority and the local authorities concerned, prepare and submit to the Government, a plan hereinafter called the "master plan", for the local planning area or any part of it and such other area or areas contiguous or adjacent to the local planning area, as the Government may direct to be included in the master plan.

(2) The master plan may purpose or provide for all or any of the following matters, namely: -

(a) the way the land in the planning area shall be used;

(b) the allotment or reservation of land for residential, commercial, industrial and agricultural purposes and for parks, play-fields and open spaces;

(c) the allotment and reservation of land for public buildings, institutions and for civic amenities;

(d) the making of provision for national highways, arterial roads, ring roads, major streets, lines of communication including railways, airports and canals;

(e) the traffic and transportation pattern and traffic circulation pattern;

(f) the major road and street improvements;

(g) the areas reserved for future development, expansion and for new housing;

(h) the provision for the improvement of areas of bad layout or obsolete development and slum areas and for relocation of population;

(i) the amenities, services and utilities;

(j) the provision for detailed development of specific areas for housing, shopping, industries and civic amenities and educational and cultural facilities;

(k) the control of architectural features, elevation and frontage of buildings and structures;

(l) the provision for regulating the zone, the location, height, number of storeyes and size of buildings and other structures, the size of the yards and other open spaces and the use of buildings, structures and land;

(m) the stages by which the master plan shall be carried out; and

(n) such other matters as may be prescribed.

In the above context, Tiruppur Local Planning Area (LPA) is selected for preparation of master plan due to its rapid urbanization. Directorate of Town and Country Planning is the State Nodal Agency (SNA) for implementing the scheme in Tamil Nadu State. The Department of Town and Country Planning, Government of Tamil Nadu with the assistant of the local authority have prepared this GIS based Master Plan (MP).

1.2 TIRUPPUR LPA PROFILE

Tiruppur Local Planning Area consists of 1 Municipal Corporation, 2 Municipalities, 3 Town Panchayats and 60 Villages located in 5 Taluks namely Avinashi, Tiruppur north, Tiruppur South, Uthukuli, and Palladam.

Table 1 Number of Revenue Villages by Taluk

S.NO.	TALUK	NO. OF REVENUE VILLAGES
1.	Tiruppur North	7
2.	Tiruppur South	16
3.	Avanashi	11
4.	Uthukuli	5
5.	Palladam	29
	Total	68

1.2.1 Tiruppur City Municipal Corporation

Tiruppur City Municipal Corporation is the only Corporation in the LPA having 444352 population with an area of 27.20 sq.km in 2011. In 2019, 2 Municipalities and 7 census towns were merged with Tiruppur Corporation forming an area of 159.32 sq.km having population of 852711.

Table 2 Corporation Area and Population

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION
Tiruppur (M.Corp)	159.32	852711

SOURCE – CENSUS OF INDIA

1.2.2 Municipalities

There were 3 municipalities while considering 2011 census. S.Nallur and Velampalayam merged with Tiruppur Corporation during its expansion. However, Thirumuruganpoondi was upgraded as Municipality in 2019.

Table 3 Municipality Area and Population

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION
Palladam (M)	19.42	42225
Thirumuruganpoondi (M)	14.50	31528
Total	33.92	73753

SOURCE – CENSUS OF INDIA

1.2.3 Town Panchayats

The 3 Town Panchayats in the LPA are Avanashi, Uthukuli and Samalapuram.

Table 4 Town Panchayats Area and Population

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION
Avanashi (TP)	11.65	28868
Uthukuli (TP)	5.57	10130
Samalapuram (TP)	21.75	20691
Total	35.03	59689

SOURCE – CENSUS OF INDIA

1.2.4 Village Panchayats

There are 54 Villages in the LPA and they are listed below.

Table 5 Village Panchayats Area and Population

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION
Agraharaperiapalayam	5.37	2861
Alagumalai	18.52	5828
Anuppatti	10.53	2018
Chittambalam	13.87	3648
Elavanthi	14.39	2309
Ettiveerampalayam	14.90	8814
Ganapathipalayam	22.88	14022
Ichipatti	16.00	9527
K.Krishnapuram	9.20	3024
Kalipalayam	10.87	4743
Kandiankoil	38.22	6953
Kaniampundi	7.85	2888
Karadibavi	12.62	3647
Kasba Ayyampalayam	11.12	3430
Kattur	26.98	6765
Kethanur	17.54	3797
Kodangipalayam	17.67	6987
Madappur	31.59	5496
Mallegoundenpalayam	9.89	1448
Mudalipalayam	17.25	13900
Muthampalayam	4.15	1463
Nachipalayam	10.49	2815
Naranapuram	21.10	14018
North Avanashipalayam	9.48	2587

Panickkampatti	12.67	3982
Paruvai	12.07	3778
Peruntholuvu	19.61	4631
Pongalur	18.5	11688
Pongupalayam	9.28	5811
Poomalur	17.96	7605
Pudupalayam	14.76	7671
Puliampatti	7.32	2041
South Avanashipalayam	25.8	11575
Sukkampalayam	14.27	4420
Thekkalur	21.42	12688
Thonguttipalayam	17.95	5200
Ugayanur	19.36	5022
Vadugapalayam	14.76	5595
Vavipalayam	34.73	6468
Velampalayam	9.56	3512
Velarasikallipalayam	23.09	5648
Velarasivadamalaipalayam	23.99	4487
Perumanallur (CT)	7.00	7356
Palangarai (CT)	14.60	17248
Sembianallur (CT)	6.97	7586
Velayudampalayam (CT)	7.97	9192
Chengappalli (CT)	12.92	6587
Sircar Periapalayam (CT)	5.27	5986

Kanakkampalayam (CT)	7.81	12160
Mangalam (CT)	10.86	17699
Iduvai (CT)	9.34	8006
Karaipudur (CT)	22.33	28602
Semmipalayam (CT)	7.37	8429
Total	802.94	373661

SOURCE – CENSUS OF INDIA

1.2.5 Peri Urban Villages

Peri-urban villages play a crucial role in the sustainable development of urban areas, and their inclusion in Local Planning Areas (LPAs) is essential for holistic and inclusive urban planning.

Name of the Block	Name of the Periurban Villages in Tiruppur District
Avinashi	Kaniampoondi
Palladam	Aarumuthampalayam
Palladam	Ganapathypalayam
Palladam	Karaipudur
Palladam	Manickapuram
Pongalur	Nachipalayam
Pongalur	Peruntholuvu
Pongalur	Thonguttipalayam
Pongalur	Ugayanur
Tiruppur	Iduvoi
Tiruppur	Kalipalayam
Tiruppur	Kanakkampalayam
Tiruppur	Mangalam
Tiruppur	Mudalipalayam
Uthukuli	Agrahara Periyapalayam
Uthukuli	Morattupalayam
Uthukuli	Sarkar Periapalayam

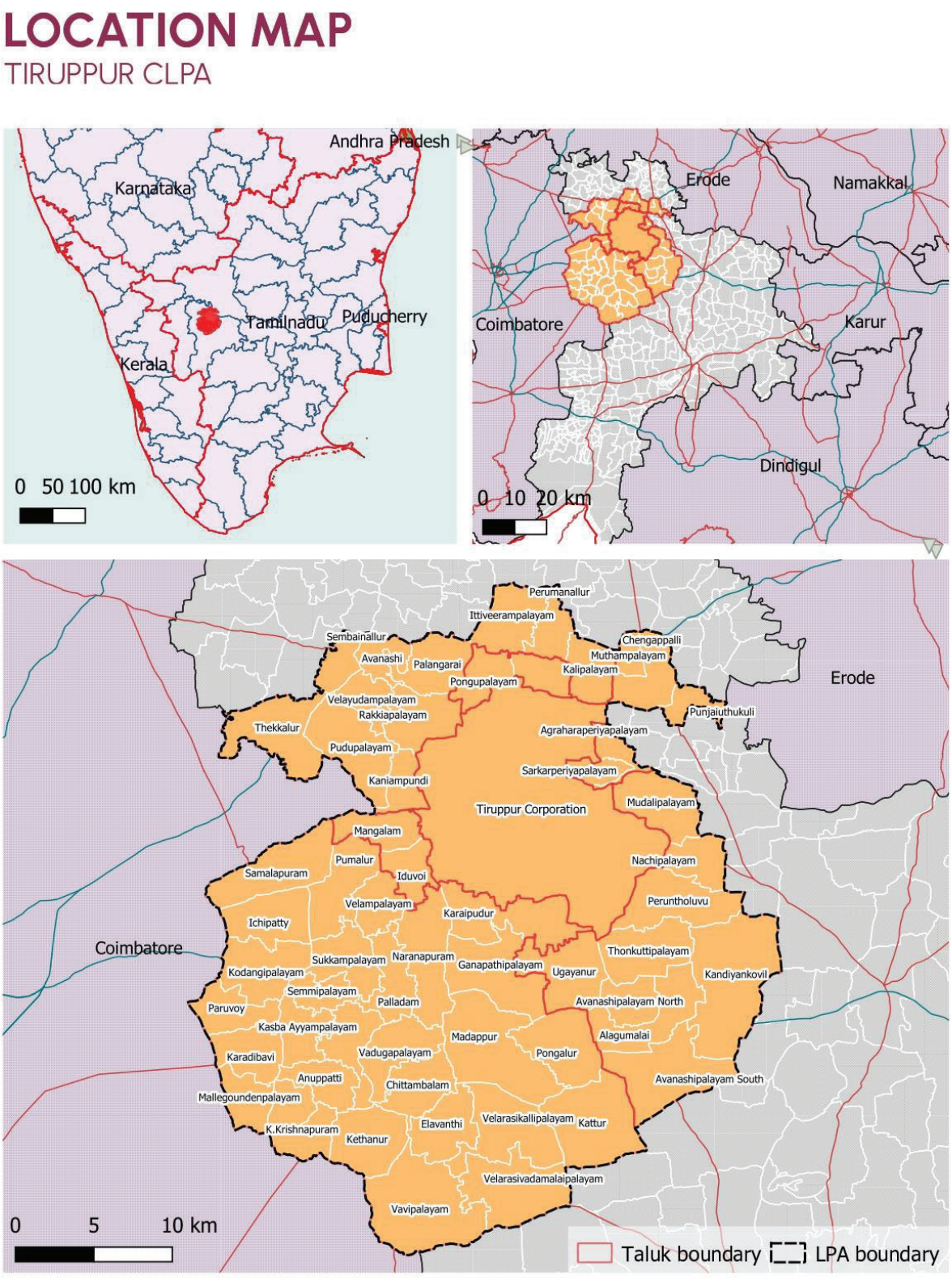
Only Morattupalayam adjacent to Agragaraperiyapalayam is not included in the Planning area.

By incorporating these villages into the planning process, Tiruppur LPA create a more inclusive, resilient, and sustainable urban environment that respects the unique characteristics and needs of peri-urban villages.

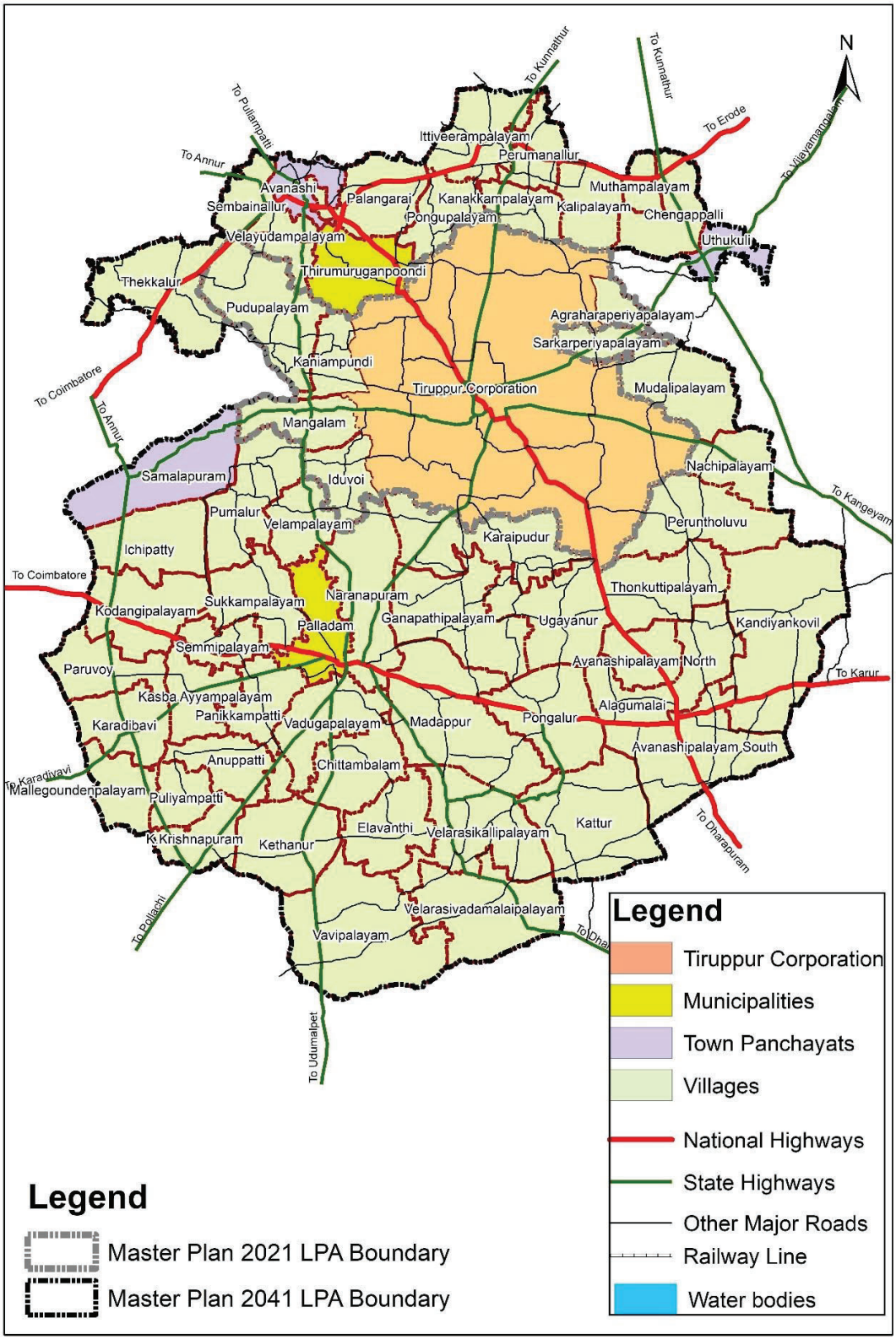
1.2.6 Census Towns in the LPA

There are 17 census towns in the LPA and 7 Census Towns are in the Tiruppur Corporation Boundary.

Census Town	Area in Sq.km	2011 Population
Perumanallur (CT)	7	7356
Palangarai (CT)	14.6	17248
Sembianallur (CT)	6.97	7586
Velayudampalayam (CT)	7.97	9192
Chengappalli (CT)	12.92	6587
Sircar Periapalayam (CT)	5.27	5986
Kanakkampalayam (CT)	7.81	12160
Neripperichal (CT)	19.67	53579
Chettipalayam (CT)	10.39	37620
Thottipalayam (CT)	5.69	40503
Mannarai (CT)	8.23	17261
Mangalam (CT)	10.86	17699
Andipalayam (CT)	9.01	25539
Iduvai (CT)	9.34	8006
Muthanampalayam (CT)	21.87	26014
Veerapandi (CT)	21.02	50301
Karaipudur (CT)	22.33	28602
Semmipalayam (CT)	7.37	8429



Map 1 Location of the Tiruppur LPA



Map 2 Administrative map, Tiruppur LPA

1.3 MASTER PLAN APPROACH

1.3.1 Master Plan Process

Master Plan/New Town Development Plan is a land use plan prepared for towns with regulatory guidelines to ensure orderly development of the planning area. In the broader sense, it aims at land use regulations and provision of effective road network, fixing alignment of bye-pass roads, ring roads etc. It involves a continuous process like deriving, organizing and presenting a broad comprehensive programme for urban development and renewal. It is designed to fulfil local objectives of the physical well-being and also indirectly including social, economic aspects considering both the immediate need and those of foreseeable future. The development is regulated according to the Master Plan/ New Town Development Plan prepared for the particular town, which paves way for fair development of the town improving the quality of life of the urban populace.

1.3.2 Methodology

Master Plans prescribe the spatial pattern on how the city should get developed for a period of twenty years in India. The time period for the preparation of Master Plan in India varied from 1 to 4 years and in some cases, it is beyond that also. As the time period for the preparation is too long, Ministry of Urban Development, Government of India, looked forward, on how the technology can be harnessed to prepare the master plans for the towns and Cities. In this context, the Government have thought to use High Resolution Satellite Imageries and GIS as a tool to speed up the preparation of Master Plan. In this context, Ministry of Human Development has formulated GIS Based Master Plans for Cities and Towns. It involves preparation of Existing Land use Plan using High Resolution Satellite Imagery using GIS, preparation of Concept Plan, Preparation of Infrastructure Plan and Preparation of Proposed Land use Plan.

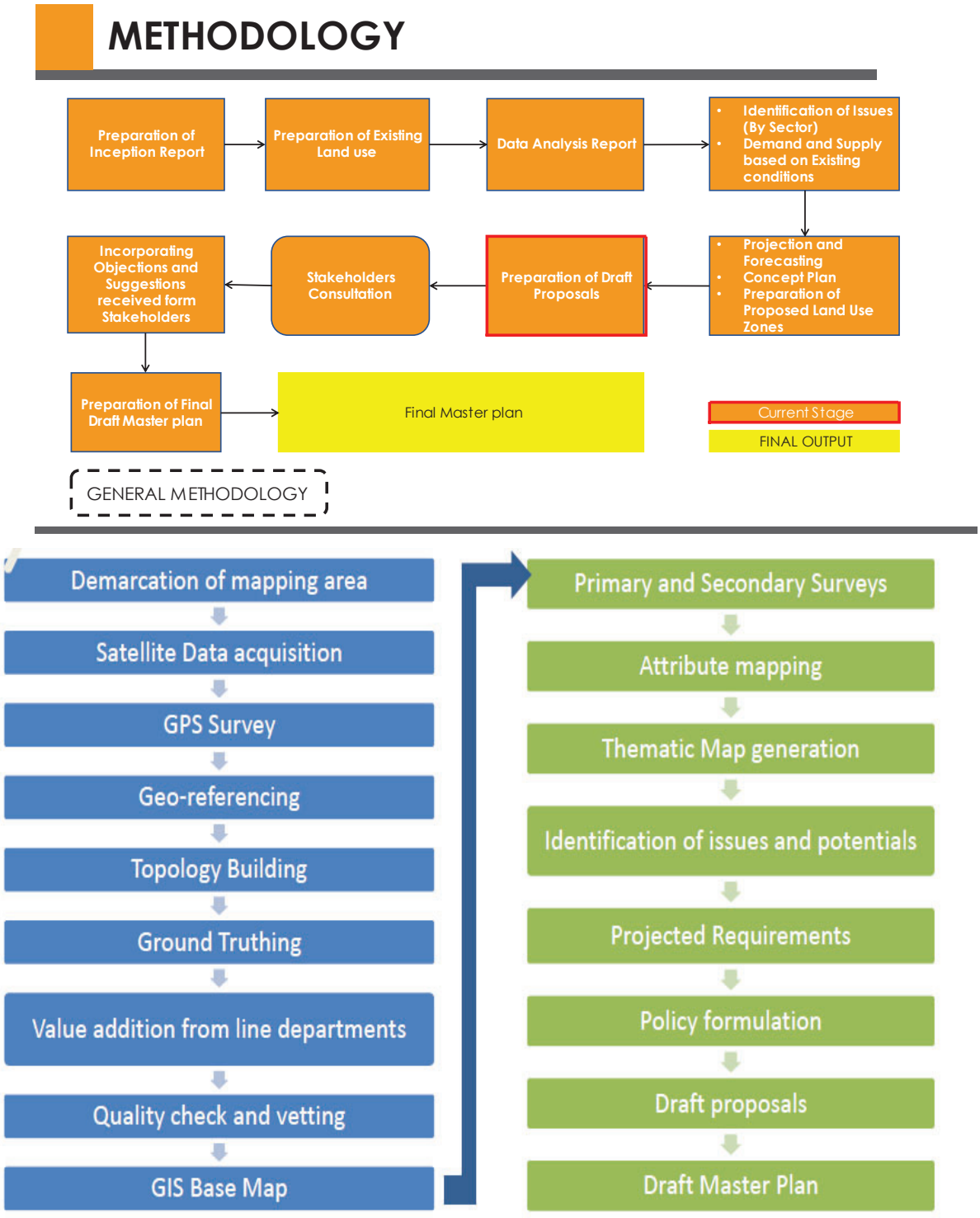


Figure 1 Methodology

1.3.3 Survey and Studies

Planning Surveys will vary in content and scope from the surveys needed to be carried out for a Master Plan/ Development Plan etc. Basic data is collected generally by a sample survey and this data will broadly cover housing, transport, physical services, social services, amenities etc. Aspects like family income, means of livelihood, and nature of employment are also covered. In addition, depending in the nature of the exercise, a detailed surveys and projections are also required over the plan period / horizon year so that future requirements are adequately catered to. The preliminary planning survey may be considered to consist of the following components:

- Preparation of Base Map of the urban area.
- Existing Land Use Survey.
- Utilities and Services Surveys.
- Survey of Community facilities like Schools, Hospitals, Clinic, Parks and Playgrounds, etc.
- Sample household survey for collecting essential data on housing, transport services and amenities.

1.3.4 Base Map preparation

In the absence of an accurate base map, no planning exercise can be undertaken. The base map should show all the streets, lanes and open spaces and division of area by plots with survey numbers. The base map should show all physical features including contours. In most of the urban areas, this map may not be available readily and where available, it may be outdated. The first step therefore, would be to get any available map on a scale in which the individual plots with their survey numbers, are/can be shown and then proceed to check that map, from part to whole. While checking, omission and errors and new sub-divisions should be entered on the map. For this survey, a team of experienced field staff working under a qualified town planner are required. While the field staff is engaged in checking the map and making it up-to-date, the town planner supervising the work may undertake other surveys which do not require a detailed base map. The amount of information to be represented on the map depends on scale, projection, conventional signs, draughting skill, methods of map-making, purpose of map, etc. and hence would vary from map to map. Uniformity of base map with regard to presentation of features, scale,

size and notations would facilitate the readability of these maps and comparison of one map with another. Every base map must be provided with a key map, chosen to a suitable scale at the right-hand upper corner. A map will not make sense unless a list comprising of various symbols, etc. used for various types of elements shown is provided in the form of a legend which is usually shown in the right-hand side of the map. It is essential to give every map a title. In the normal practice, titles of the study/project are written in a horizontal line at the bottom of the map.

Now a days, aerial photography is used for preparation of base map. Large scale aerial photography is being used for generation of base maps and other thematic maps for urban areas as it proves to be cost and time effective and reliable. Wealth of information pertaining to land features, land use, built-up areas, city structure and urban form, physical aspects of environment, etc. is available from the aerial photography. It is the skill of the interpreter who can extract the information useful for generation of various thematic maps and graphic data required for preparation of urban development plan. For preparation of base map, the following stages of work are generally involved are shown in the following figure.

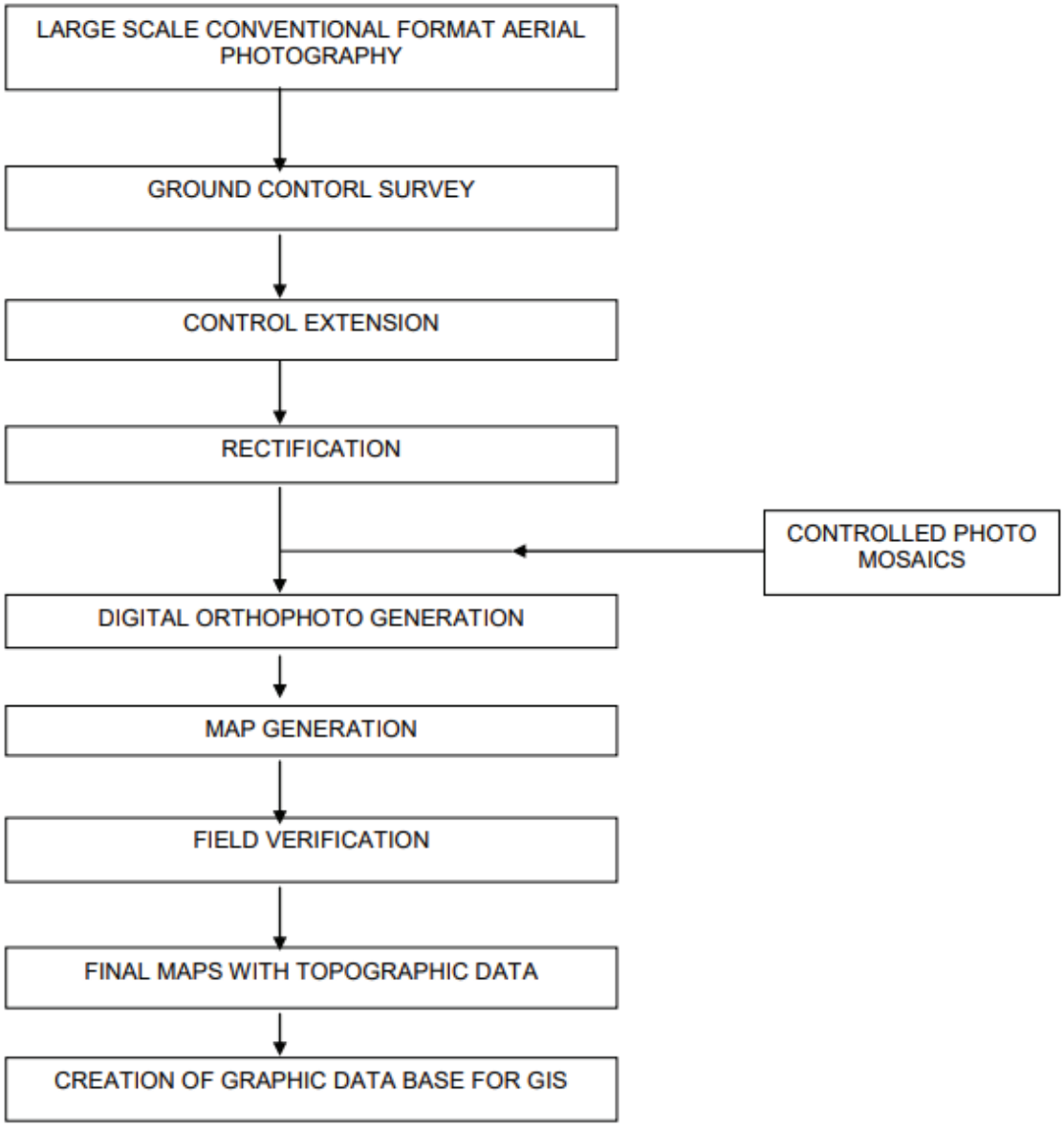


Figure 2 Methodology for Base Map Preparation

A base map is a fundamental map that contains information for those who need to refer to it repeatedly throughout the project or process. A base map should have following information:

- Village boundary
- Farm land and survey information
- Streams and rivers
- Slope

- Important local land marks within the village
- Settlements
- Road's network and connectivity
- Existing traditional /large water bodies

There is no single map that contains all of the above information and therefore to prepare a base map there needs to be two maps such as (1) Cadastral Map and (2) Toposheet which contain the above information. Along with these two maps, there needs to be some consultations with village people to identify and locate important local landmarks that people use to visualise the respective areas in their mind and to communicate to farmers and other stakeholder for an effective water management and planning at village and / or Gram Panchayat level.

Cadastral Maps are available at

- District Land Record Office
- Taluk or Panchayat Office

Contains Information about

- Farm Lands
- Local Roads
- Grazing Lands
- Traverse Land
- Settlements
- Tanks

Toposheets are available at

- Survey of India

Contains Information about

- River and Streams
- Roads
- Contours
- Height Points
- Water Bodies
- Important Landmarks

1.3.5 Standardization of Data Using Remote Sensing and GIS

GIS is a computer-based system, capable of input, storage, manipulation, analysis of data useful for planning, decision-making and implementation. GIS is a powerful tool which helps planners to view different scenarios and their outcome so that an optimal strategy may be chosen for planning and development. It is basically a map processing technique and not for generation of base maps. Once the spatial and attribute data is generated in GIS, its application areas are many and varied. These include resource inventory and management, planning and monitoring, land records for taxation and ownership controls, facilities and services management, environment impact assessment, etc. The PC-based GIS system is available in the market both in raster and vector modes and data from remote sensing and other sources can be integrated. Planning agencies can acquire such system to have quick analysis of geo-referenced data for planning and development.

Remote sensing data is used to study and monitor land features, natural resources and dynamic effects of human activities on urban areas. Today, with the resolution available, the application of remote sensing data for urban development plans could mainly be for assessment of natural resources, land use monitoring and planning and map-making. A broad base map of the city and city-region, indicating physical features including major road network, may be prepared quickly with the help of satellite imageries. Applications of remote sensing data are numerous and it can be interpreted with the help of computer aided analysis. Both methods require certain amount of ground support information which should normally be collected by an interpreter to develop a key and is generally referred as ground truth. Using the ground truth or interpretation key, the remote sensing data is analysed, interpreted and maps related to existing features, land use, broad settlement structure, resource analysis, etc. could be generated. Visual interpretation is easy technique and personnel having elementary training can make use of remote sensing data for generation of maps.

02

TIRUPPUR LOCAL PLANNING AREA

2 TIRUPPUR LOCAL PLANNING AREA

2.1 HISTORY AND EVOLUTION

For more than 30 years, Tiruppur was mainly with development of hosiery industry. Besides these units directly involved in the manufacture of knit wear, there are few hundreds of other supporting service units for manufacture of cartons, labels, polythene bags, plastic Tapes etc., Due to the fast urbanization of the town and its environs, developing with house and commercial sites, there is no possibility of growth in primary sector working force. It reveals from the table of study that the working force in the secondary sector shows 26.45% increase during 1981 to 1991. In particular the workers in the manufacturing industry shows the increase 20.10% which shows the chance of manufacturing activity to flourish in future also. The population growth rate of Tiruppur city was moderate till 1921. In fact, the population growth rate had declined between 1911 and 1921 due to epidemics in 1917-18. Since then, the population growth rate has witnessed a sharp rise. The decadal population growth rate was more than 50 percent between 1931 and 1961. It was very high at 83 percent in 1941. Though the population growth rate had declined since 1961, the decadal growth rate was higher when compared to Coimbatore city. For example, the population growth rate of Coimbatore city was 15.45 percent in 1981- 1991 whereas it was 42.63 percent for Tiruppur city. Many people from the villages of Coimbatore district and other districts of Tamil Nadu migrated to Tiruppur mainly for unskilled work in the dyeing and bleaching industries.

2.2 SETTLEMENTS GROWTH TREND

The spatial growth within the Tiruppur LPA and the nearby towns can be categorized as ribbon-based development, where growth has been along the radials originating from the population concentrated nodes. The initial growth was based on the natural population which accelerated due to establishment of knitwear industries. Further, with migration of industrial labourers from across the country to nearby towns, the spatial development became organic and was along the radials towards Avinashi and Palladam.

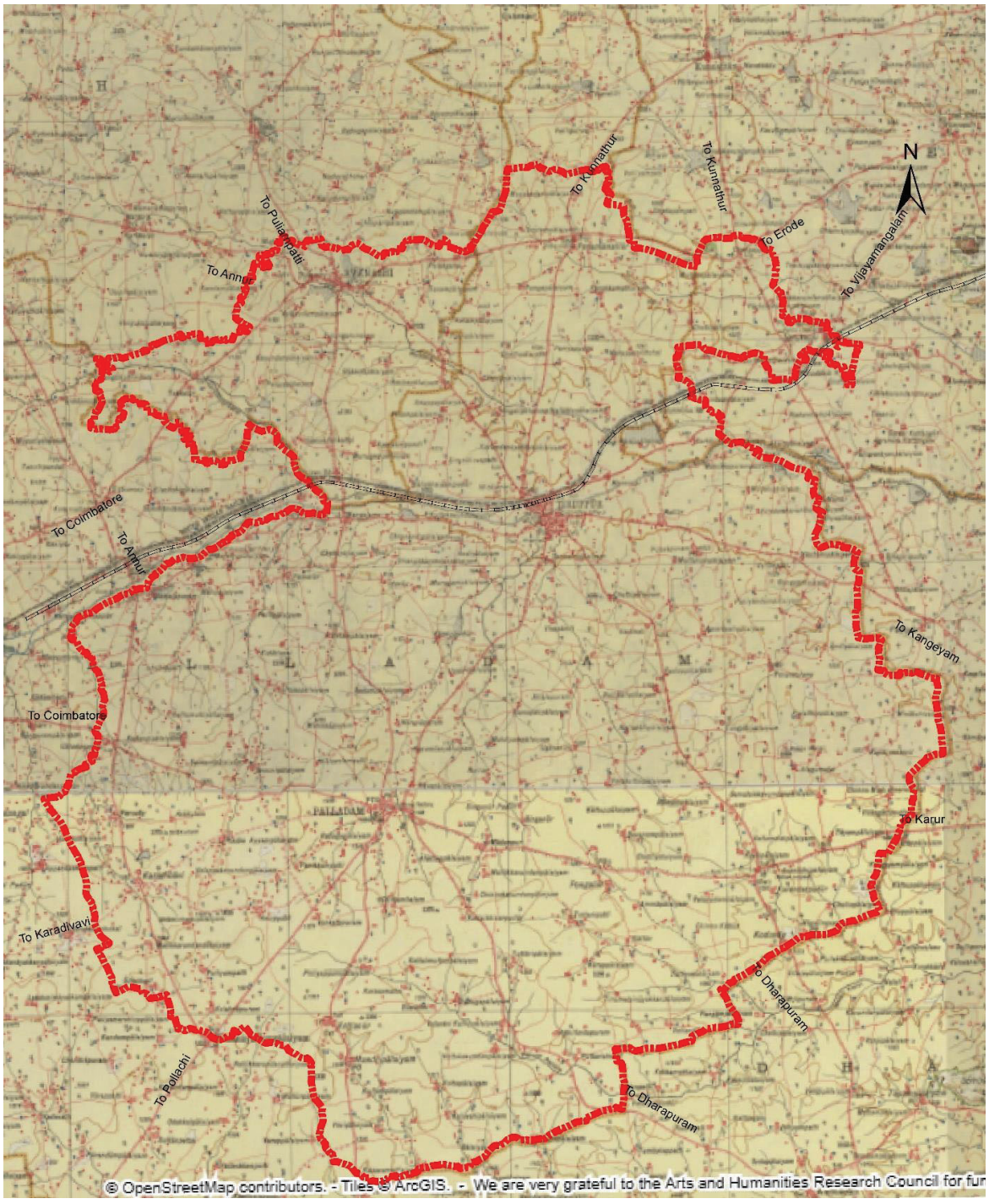


Figure 3 Historic Settlements of Tiruppur LPA

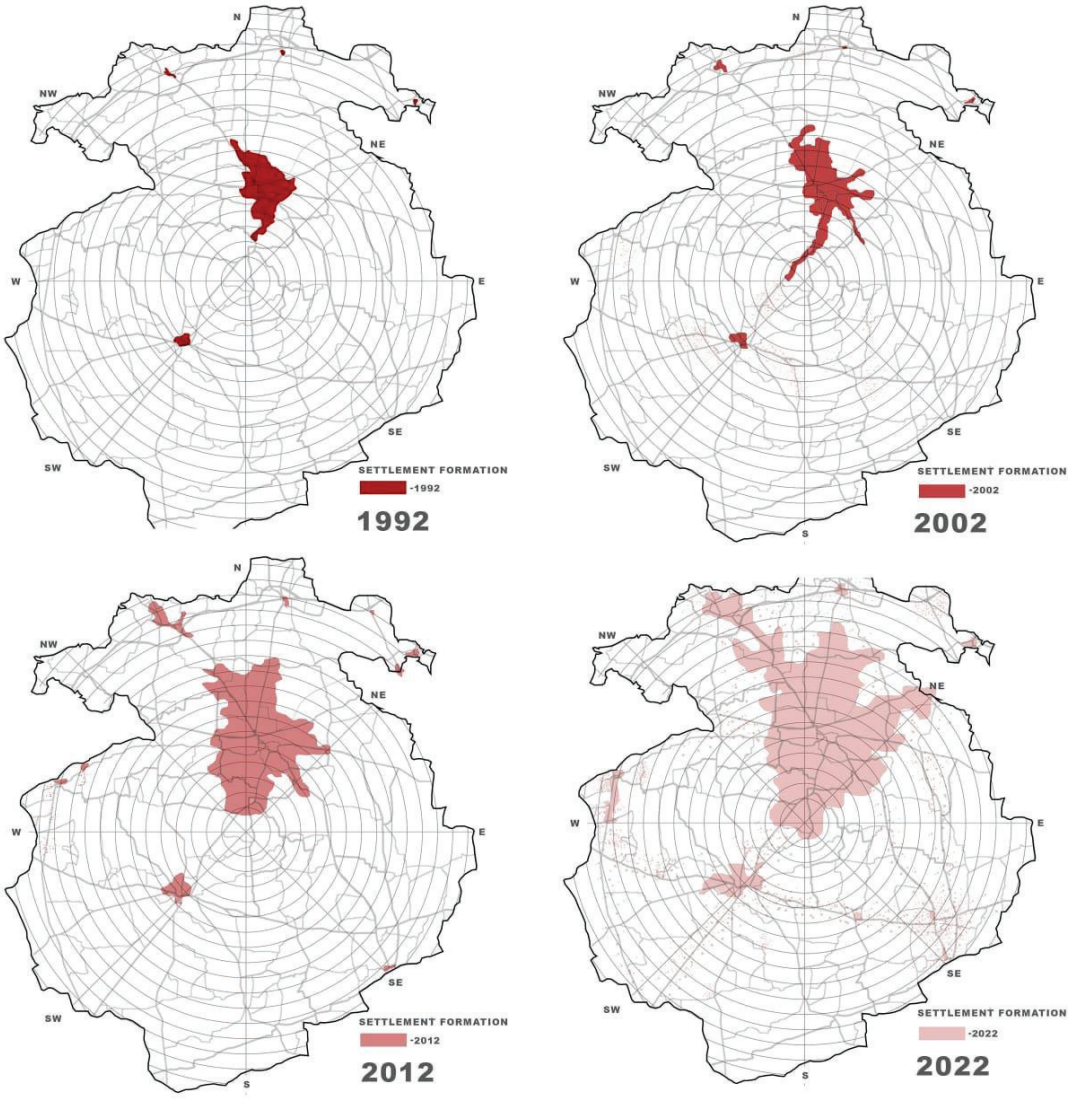


Figure 4 Decadal Settlement Growth of Tiruppur LPA

Map 3 Map showing Settlements in Tiruppur LPA in 2023

Post 1990's to 2000's, the predominant spatial growth occurred towards the north of the Noyyal River due to availability of water resource required by newly established industries and close proximity to Tiruppur Railway Station which served as a major transit hub. Due to which the spatial growth in the form of ribbon development was observed along the SH-19 (Tiruppur-Avinashi Road) and SH-196 (PN Road). From 2000's to the present, the spatial growth has been concentrated along the radials i.e. SH -19, SH-196 and SH-19A and has spread horizontally. Further, initiatives were undertaken to uniformly spread the spatial development by establishing industrial clusters but still the spatial growth has been concentrated in Tiruppur, Palladam and Avinashi.

2.3 CLIMATE

Due to the presence of the Palghat gap, the city receives rainfall from the South-west monsoon in the months from June to August. After a humid September, the North-east monsoon brings rains starts from October which lasts till early November. The average annual rainfall is around 700 mm (28 in) with the North East and the South West monsoons contributing to 47% and 28% respectively to the total rainfall. The soil is predominantly black, which is suitable for cotton cultivation, but it also has some red loamy soil. Tiruppur falls under the Class III/IV seismic zone, having experienced a 6.0 Richter scale earthquake in 1900.

2.4 GEOGRAPHY

Tiruppur District lies towards the western region of Tamil Nadu. It is near the Western Ghats and it enjoys a moderate climate throughout the year. Surrounded by the Coimbatore District to its West, Erode District to its North, Dindigul District to its South and Karur District to its East. The Southern and Western Ghats are the main reasons for rainfall in Tiruppur during the monsoon season. The city reaches a maximum temperature of 32-35 degrees Celsius during summer. The Amaravati River is a main source of irrigation in the city. Two other dams in Tiruppur district would be the Tirumurthy Dam and Upparu Dam. Upparu Dam and Noyyal River receives water from Tiruppur's seasonal rains.

2.5 DEMOGRAPHY

Tiruppur Local Planning area has a population of 1359814 for an area of 1031 sq.km as per 2011 census. Density of the LPA is 1319 persons per Sq.km.

Total Households of the LPA is 380699 having sex ratio of 976. Literacy rate of the LPA is 73.99%.

2.5.1 Demographic and Economic Profile of Tiruppur District

2.5.1.1 Population Overview:

Tiruppur District, located in the Indian state of Tamil Nadu, boasts a diverse demographic landscape comprising multiple municipalities and local planning areas (LPAs). According to the 2011 census, the district's total population stands at 24,79,052, with significant variations in population density and distribution across its constituent regions.

Tiruppur Corporation: The district's urban hub, Tiruppur Corporation, is home to 8,52,711 residents. Spanning an area of 159.32 sq.km, the corporation has a population density of 5,352 persons per sq.km, reflecting its urban nature.

Municipalities: Palladam Municipality and Thirumuruganpoondi Municipality contribute 42,225 and 31,528 residents, respectively. With population densities of 2,174 persons per sq.km each, these municipalities play significant roles in the district's demographic makeup.

Rest of LPA: The remaining local planning areas, covering a vast expanse of 838.42 sq.km, accommodate 4,33,350 people, resulting in a lower population density of 517 persons per sq.km.

2.5.1.2 Households and Sex Ratio:

The distribution of households and sex ratio offers insights into the social fabric of the district:

Households: Tiruppur Corporation has 2,38,172 households, while Palladam and Thirumuruganpoondi municipalities have 12,054 and 8,789 households, respectively. The rest of the local planning areas contribute 1,21,684 households, totalling 7,10,296 households in the district.

Sex Ratio: The sex ratio varies across regions, with Tiruppur Corporation recording 963 females per 1,000 males, Palladam Municipality with 1,009, Thirumuruganpoondi Municipality with 977, and the rest of LPA with 998. The overall sex ratio for the district is 989.

2.5.1.3 Educational Landscape:

Education is a key parameter for assessing the district's development:

Literacy Rates: Tiruppur Corporation exhibits a literacy rate of 76.66%, while Palladam and Thirumuruganpoondi municipalities record rates of 74.08% and 74.05%, respectively. The literacy rate is comparatively lower in the rest of the local planning areas at 68.74%. The district's overall literacy rate is 78.68%.

2.5.1.4 Geographical and Economic Dimensions:

Geographical spread and economic activities are crucial factors shaping the district's profile:

Geographical Area: Tiruppur Corporation, Palladam Municipality, and Thirumuruganpoondi Municipality cover 159.32 sq.km, 19.42 sq.km, and 14.50 sq.km, respectively. The rest of the local planning areas contribute significantly to the district's expansive geography, totaling 838.42 sq.km.

Workforce Distribution: The district's economic landscape is diverse, with sectors contributing to the workforce. Primary sectors employ 60,685 individuals, household industries engage 17,694, and other workers account for 5,71,630. The total workforce in the district is 6,50,009.

This detailed overview provides a comprehensive understanding of Tiruppur District's demographic, educational, and economic attributes, facilitating informed decision-making for sustainable development initiatives.

Table 6 Demography

CONTENTS	TIRUPPUR CORPORATION	PALLADAM MUNICIPALITY	THIRUMURUGANPOONDI MUNICIPALITY	REST OF LPA	TOTAL LPA	TIRUPPUR DISTRICT
Population (2011)	8,52,711	42,225	31,528	4,33,350	13,59,814	24,79,052
Area in Sq.km	159.32	19.42	14.50	838.42	1,031.66	5,187
Density (Persons Per Sq.km)	5,352	2,174	2,174	517	1,318	478
Households	2,38,172	12,054	8,789	1,21,684	3,80,699	7,10,296
Sex Ratio	963	1,009	977	998	976	989
Literacy Rate in (%)	76.66%	74.08%	74.05%	68.74%	73.99%	78.68%
DETAILS OF WORKFORCE						
SECTORS	**TIRUPPUR CORPORATION**	**PALLADAM MUNICIPALITY**	**THIRUMURUGANPOONDI MUNICIPALITY**	**REST OF LPA**	**TOTAL LPA**	**TIRUPPUR DISTRICT**
Primary Sectors	5042	931	389	54,323	60,685	3,82,150
Household industry	8,125	318	250	9,000	17,694	40,988
Other Workers	3,82,968	17,126	13,451	1,58,086	5,71,630	8,42,999
Total Workers	3,96,135	18,375	14,090	2,21,409	6,50,009	12,66,137

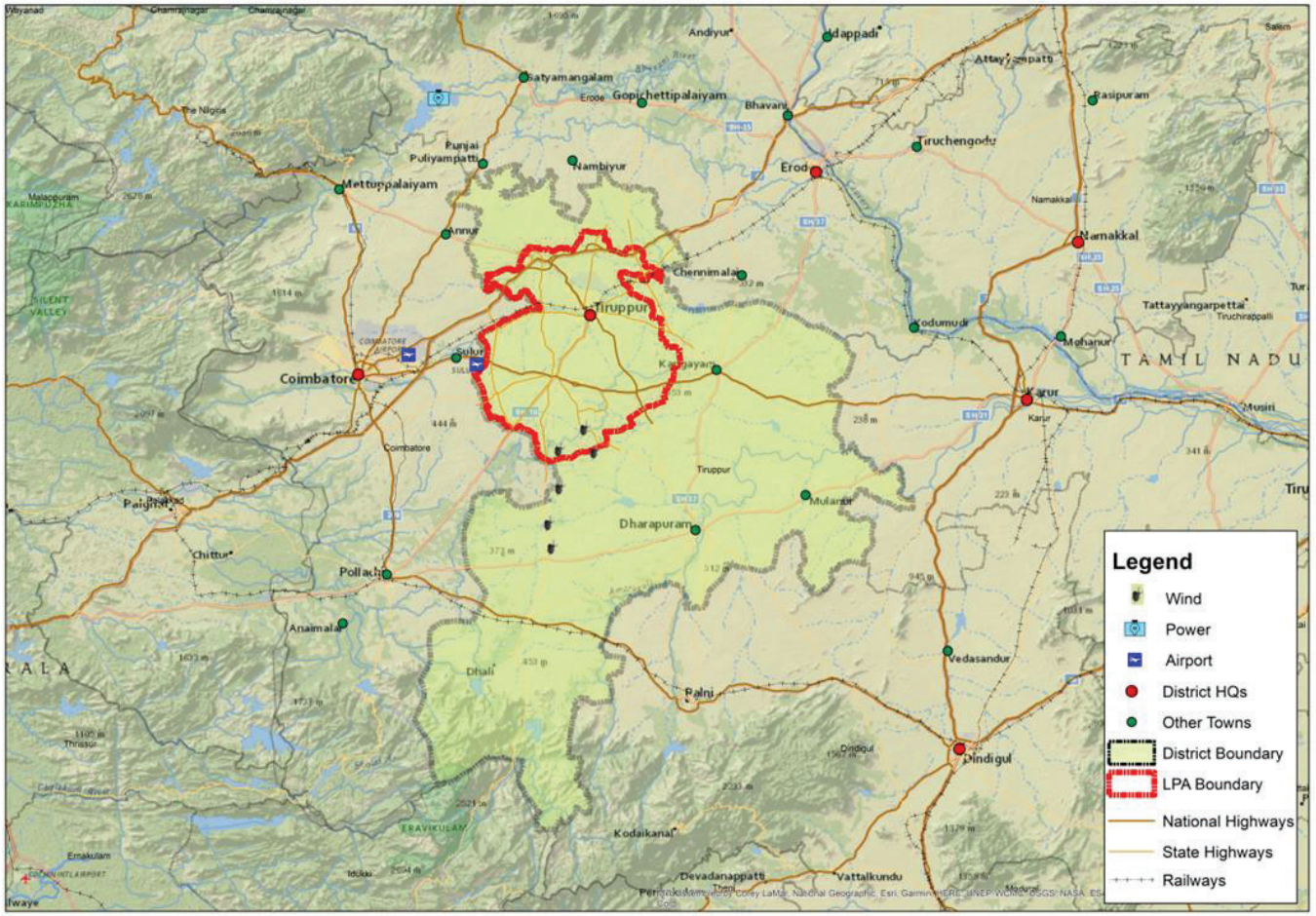
2.6 REGIONAL CONNECTIVITY

The Tiruppur LPA has good road connectivity with all the major settlements and well connected with various towns in Tamilnadu and neighbouring states. Road network within Tiruppur LPA can be categorized as a radial based network originating from Tiruppur Municipal Corp. and each of the major settlements. LPA has 3 National Highways, 14 State Highways, and 14 Major District Roads. It has two rail line aligned along the east-west axis providing rail connecting to the whole region and nearby settlements. There are four railway stations within the LPA region i.e. 1 major (Tiruppur) & 3 minor (Uthukuli, Koolipalayam and Vanjipalayam).

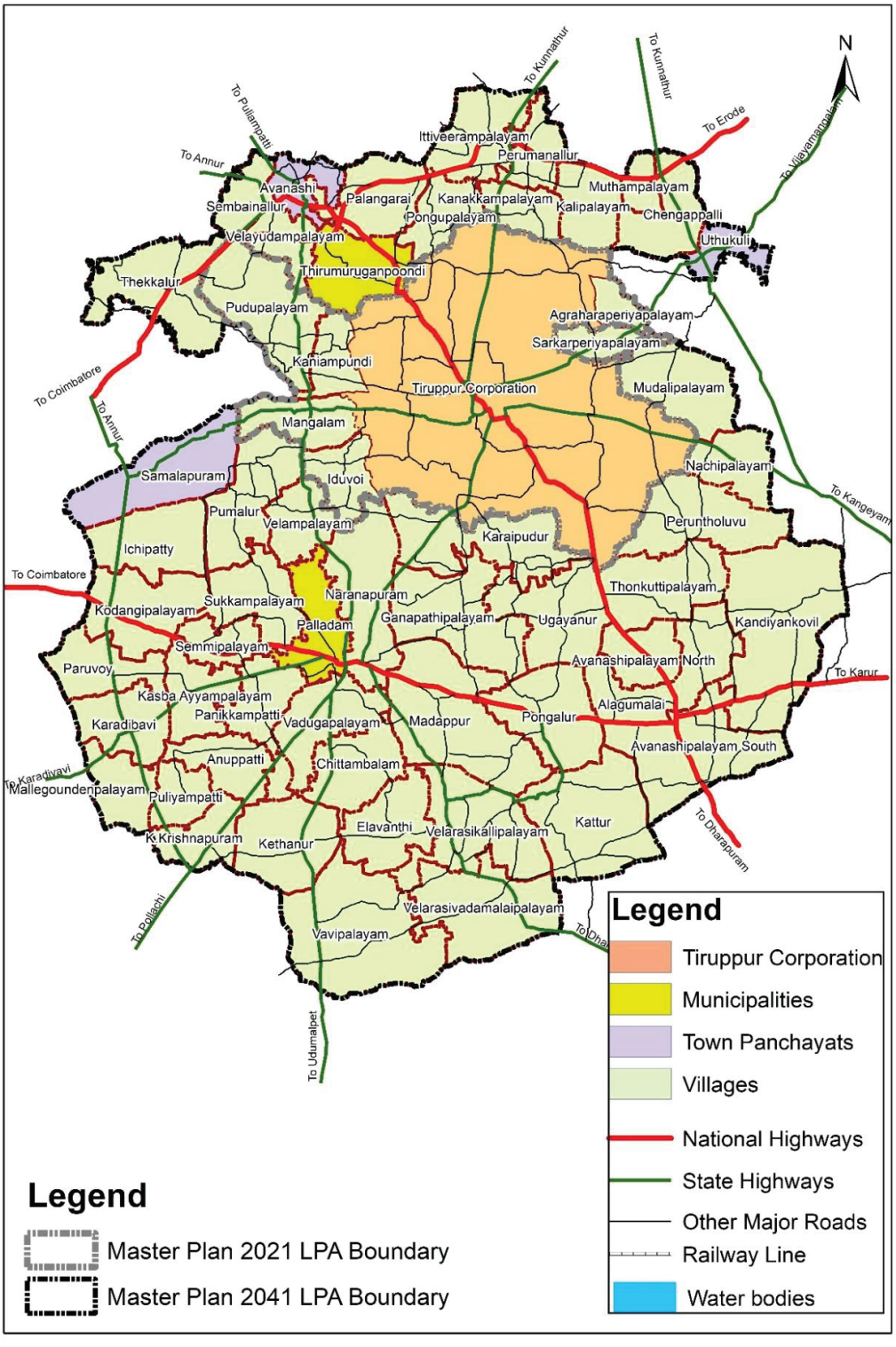
The nearest airport to the Tiruppur LPA is the Coimbatore International Airport situated about 45 km from the Tiruppur city. The connectivity from the LPA to the airport is through the two highways i.e., NH-544 and NH-81. Tiruppur, being a major Textile industry node in the nation, has well-developed regional transportation network and linkages.

Roads: The Planning Area is served by several major road highways and state highways, including National Highways-544, 81 & 381. NH-544 that links Salem & Cochin is important as it acts as a gateway to the western Tamil Nadu. NH- 381 is entirely within the Planning area NH-81 forms the regional connectivity to Trichy as well as Coimbatore.

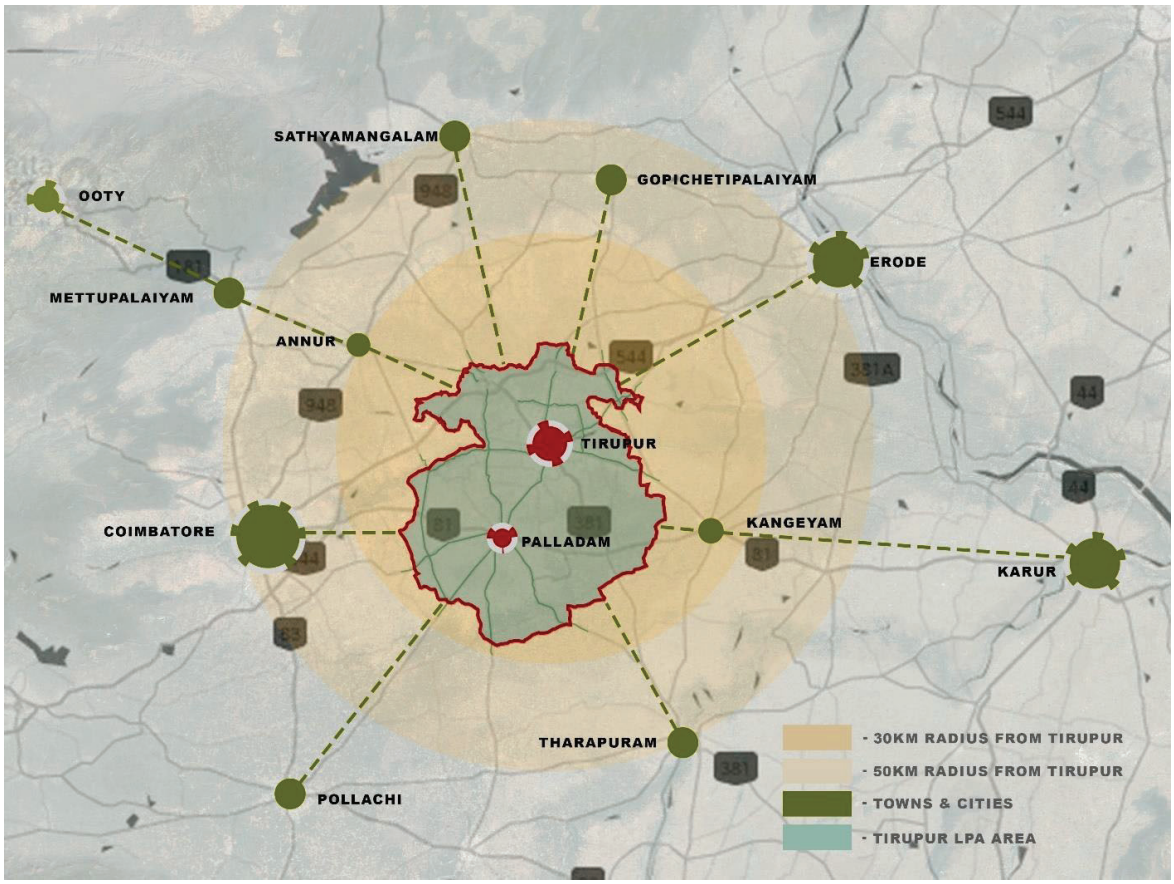
Railways: The Tiruppur railway station is located at the heart of the Tiruppur city, at proximity to the Old Bus Station of the city. The new bus stand located at PN road at the Northern part of the city is a 10–15 minutes' drive from the station.



Map 4 Location, Tiruppur CLPA



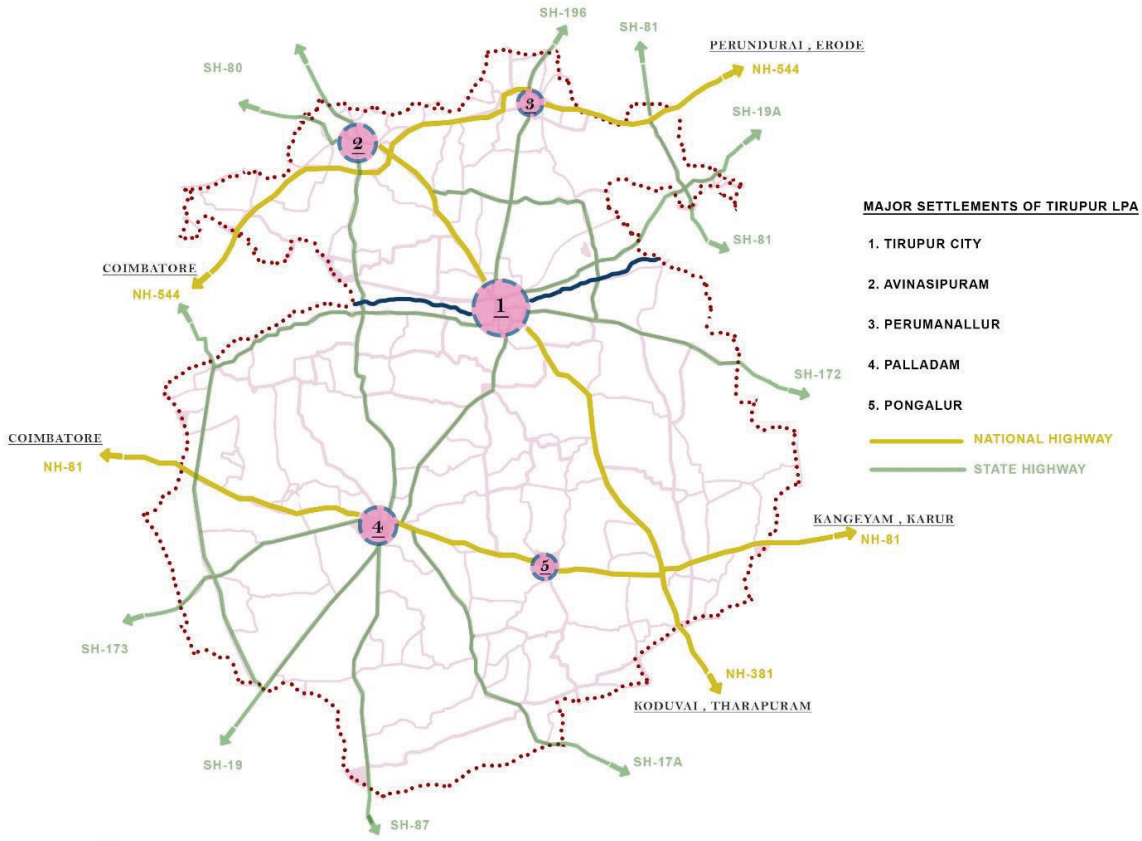
Map 5 Administrative Boundaries, Tiruppur LPA



Map 6 Regional Connectivity, Tiruppur LPA

The train station falls on the Chennai-Palakkad broad gauge line (laid in 1983) which is fully electrified and has two tracks. The Tiruppur railway station falls on the fully electrified and double tracked Salem – Coimbatore broad gauge line and is well connected by trains. Almost every daily Express train or long-distance trains has a halt in the station except for a select few such as the Trivandrum Mail and the Bangalore Kochuveli Express.

Airways: The nearest airport is Coimbatore International Airport (45 km) which has regular flights from/to various domestic destinations like Ahmedabad, Bangalore, Bhubaneswar, Chennai, Delhi, Hyderabad, Kolkata, Kozhikode, Mumbai, Pune and international destinations like Sharjah and Singapore.



Map 7 Major Settlements, Tiruppur LPA

2.7 PHYSICAL FEATURES

2.7.1 Soil and Vegetation

2.7.1.1 Major soil types in Tiruppur district:

loamy, alluvial, and clayey soils ([1]. Character of each soil are discussed below:

Loamy soil is a mixture of sand, silt, and clay in balanced proportions. It is considered one of the best types of soil for agricultural purposes due to its optimal water-holding capacity, drainage, and nutrient retention. In Tiruppur district, areas with loamy soil tend to be highly suitable for a wide range of crops.

Alluvial soil is formed by the deposition of silt, sand, and clay carried by rivers and streams. It is usually found in floodplains and river valleys. In

Tiruppur district, alluvial soil is prevalent due to the presence of rivers and water bodies.

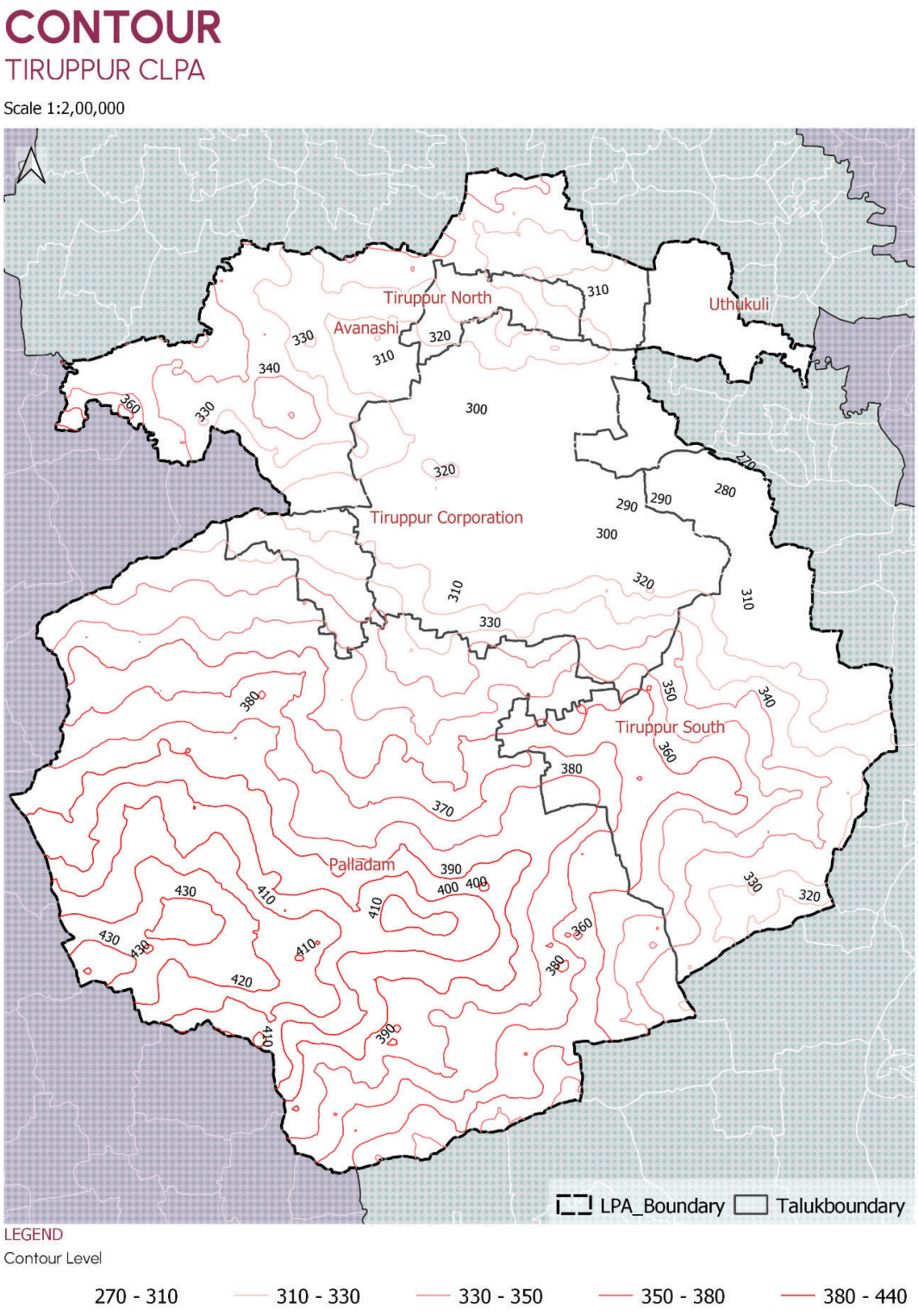
Clayey soil is characterized by its high clay content. It has fine particles that hold water and nutrients well, but it can become heavy and compacted when wet. In Tiruppur district, clayey soil might be found in certain areas where the soil has a higher clay composition.

2.7.1.2 Vegetation

In Tiruppur district, Tamil Nadu, a diverse range of horticultural crops thrive due to favorable conditions. Fruit crops, including mango, banana, aonla, sapota, and papaya, flourish alongside vegetables such as bhendi, tomato, brinjal, onion, tapioca, and moringa. The region also cultivates spices like chillies and turmeric, while cocoa adds to its plantation portfolio. The district's vibrant flora includes flower crops like jasmine, tube rose, marigold, and cock’s comb, contributing to both aesthetics and local use. Medicinal plants like gloriosa and coleus find a place here for their traditional health benefits. This array of cultivated produce underscores Tiruppur's agricultural richness and its role in the local economy.

2.7.2 Elevation

The district is situated in the western part of the state and is known for its relatively flat to undulating terrain. The district's average elevation is around 247 to 439 meters (810 to 1,440 feet) above sea level. Whereas within LPA the average elevation is around 270 to 340 meters (885 to 1115 feet) above sea level as shown in Map. While there might be some variation in elevation due to natural features like rivers and streams, the overall slope of the district is not characterized by steep or rugged inclines. This topographical makeup is generally conducive to various agricultural activities and land uses prevalent in the region, including the cultivation of horticultural crops and other forms of agriculture.



Map 8 Contour Levels in TIruppur LPA

2.7.3 Rainfall

In the plains of Tiruppur district, the region experiences an average annual rainfall of approximately 700 mm. This precipitation is primarily influenced by two monsoon seasons: the North East and the South West monsoons. These monsoons contribute significantly to the district's water resources, with the North East monsoon accounting for approximately 47% of the total annual rainfall, and the South West monsoon contributing around 28%. This pattern of rainfall distribution has a substantial impact on the local ecosystem, agricultural practices, and water availability, shaping the livelihoods of the residents and the overall landscape of Tiruppur district.

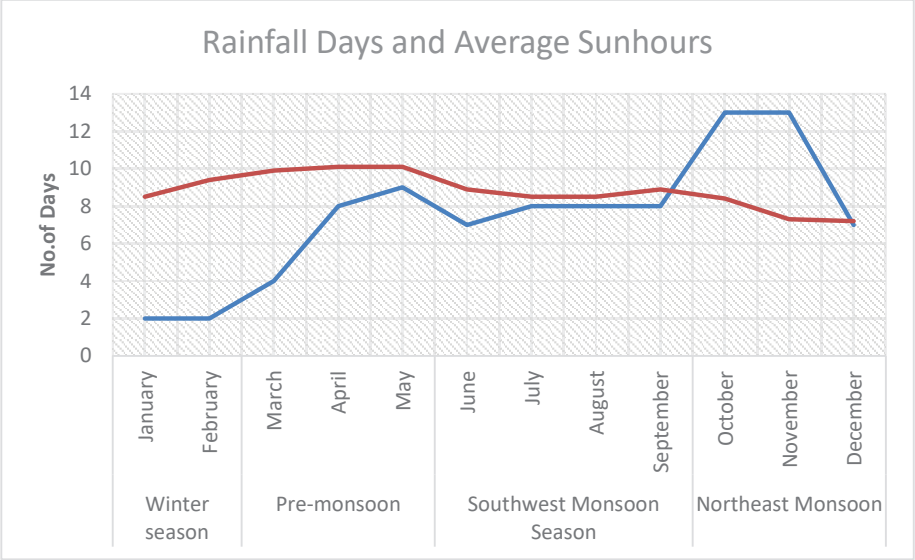


Figure 5 Rainfall and Sun days (by months), Tiruppur District

Source - bhukosh.gsi.gov.in › Bhukosh › Public

2.7.4 Temperature

Tiruppur district in Tamil Nadu experiences a seasonal temperature range. In summer, the mean maximum temperature reaches around 35°C, while the minimum hovers at approximately 18°C as shown in Figure 6. These temperature fluctuations between seasons, based on monthly averages from 1991 to 2021, shape the climate of Tiruppur district. This variation is significant for agriculture, horticulture, and local lifestyles, influencing factors like crop choices and outdoor activities throughout the year.

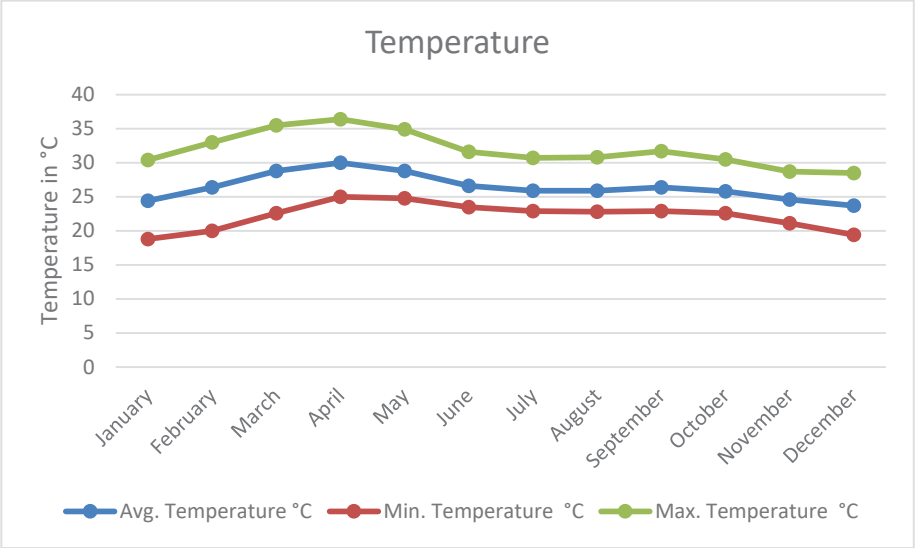


Figure 6 Temperature (by months), Tiruppur District

Source - bhukosh.gsi.gov.in › Bhukosh › Public

2.7.5 Geology

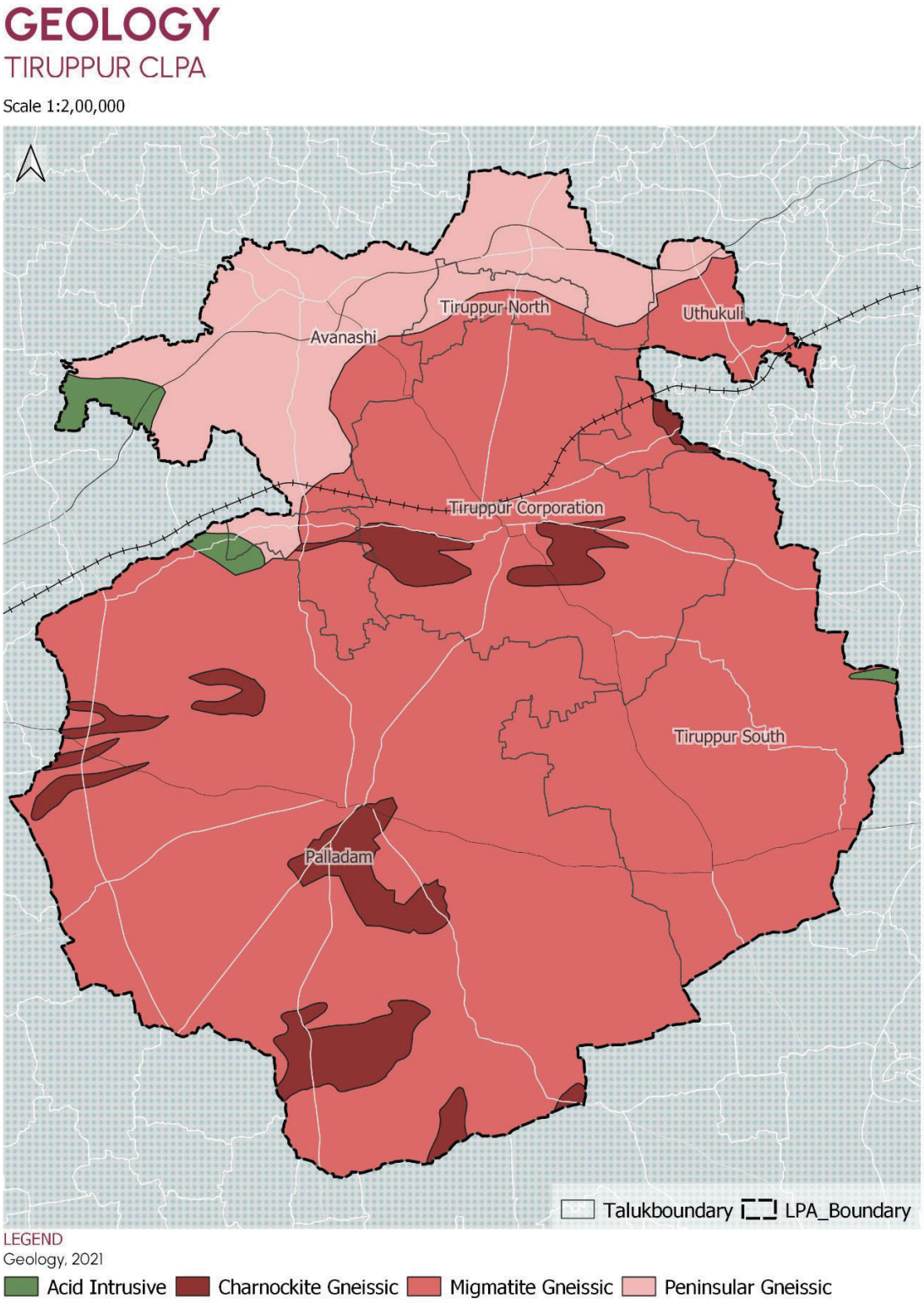
The geology of Tiruppur district is characterized by a diverse range of rock formations and geological features. The district is situated within the southern part of the Indian Peninsular Shield, which is composed of ancient rocks and has undergone complex geological processes over millions of years. Each type of geological formations found in the region are explained in detail.

Acid Intrusive: Acid intrusive rocks are igneous rocks that have formed from the solidification of magma deep within the Earth's crust. They are characterized by a high silica content and typically have a granitic composition. In Tiruppur district, these acid intrusives could refer to granitic rocks that were emplaced (intruded) into the existing rock formations. These intrusions might have occurred during geological events, contributing to the diversity of rock types in the region.

Charnockite Gneissic: Charnockite is a specific type of granitic rock with unique mineral assemblages, often rich in minerals like orthopyroxene. Charnockite gneissic rocks in Tiruppur district likely refer to gneisses (metamorphic rocks with banded textures) that have a composition resembling charnockite. These rocks might have originated from the metamorphism of pre-existing charnockite or other rocks under high temperature and pressure conditions.

Migmatite Gneissic: Migmatite is a complex rock formed by a combination of partial melting and solid-state deformation. Migmatite gneissic rocks in Tiruppur district indicate gneisses that have undergone partial melting, resulting in a mixed appearance of dark and light bands or patches. These rocks reflect a geological history involving both metamorphic and igneous processes, potentially associated with intense tectonic activity. Most of the LPA is of this type of geological formation.

Peninsular Gneissic: The term "Peninsular Gneiss" refers to a widespread rock complex found in the southern part of the Indian Peninsular Shield. It encompasses a range of metamorphic rocks, including gneisses, that have been subjected to immense pressure and temperature changes over geological time. These rocks are some of the oldest formations in the region and provide insights into the early geological evolution of the Indian subcontinent.



Map 9 Geology in Tiruppur LPA

Source - bhukosh.gsi.gov.in › Bhukosh › Public

2.7.6 Geomorphology

The geomorphology of Tiruppur district is a reflection of its geological history and the ongoing shaping forces of nature. The district's landscape is characterized by a variety of landforms, each playing a crucial role in its development, natural resource management, and urban planning, as evident in the district's existing master plan.

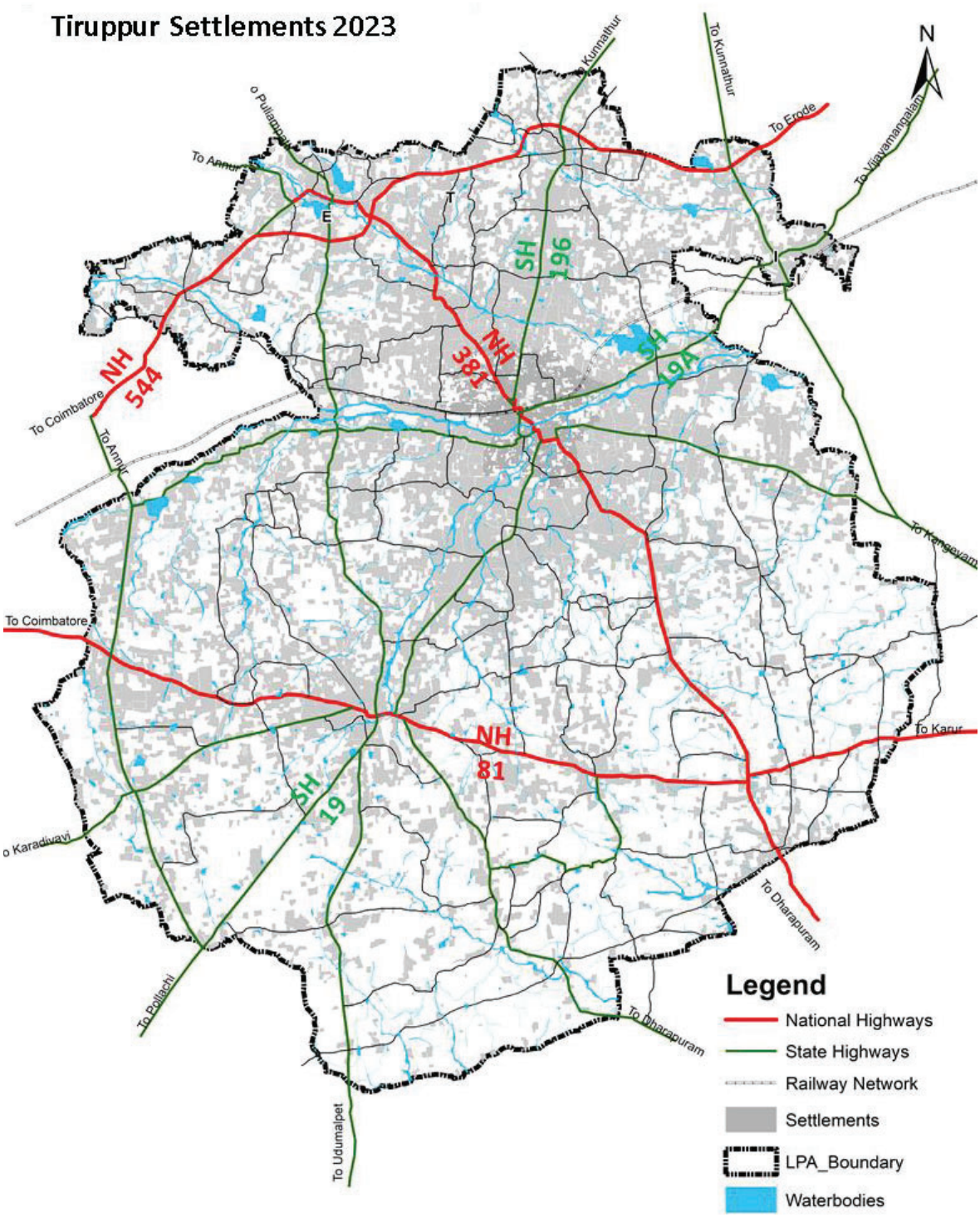
Acid Quarry: Acid quarries are sites where acidic igneous rocks, like granites, have been extracted for construction purposes. These quarries often create distinct depressions in the terrain. In Tiruppur, the presence of acid quarries has implications for land use planning and environmental management. The master plan would need to account for land rehabilitation after quarrying activities cease, ensuring minimal ecological disruption and possible future urban expansion.

Pedplain and Pediment: A pediment is a gently sloping erosion surface at the base of a mountain or hill, while a pedplain refers to the broader flat area adjacent to it. In Tiruppur district, pediments and pedplains provide valuable agricultural and residential spaces. The master plan should balance development needs while preserving these productive lands and safeguarding against soil erosion that can result from urbanization.

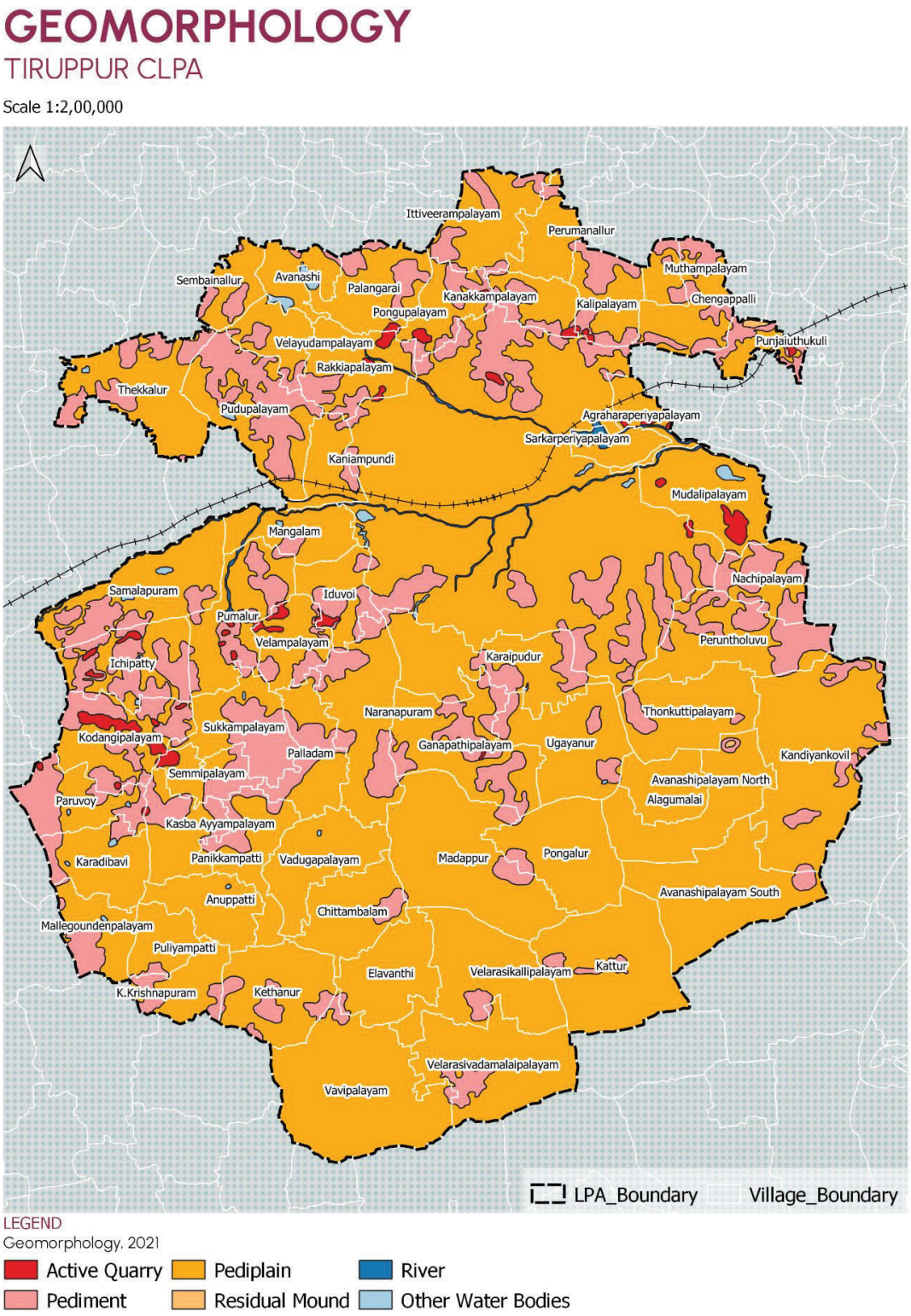
Residual Mound: Residual mounds are elevated landforms resulting from differential weathering and erosion. These mounds could be used for various purposes, including conservation, open spaces, or cultural heritage preservation. The master plan might identify areas with residual mounds for specific uses, integrating them into the district's spatial planning.

Rivers and Water Bodies: Rivers and water bodies are integral to the geomorphology of Tiruppur. They shape the land, provide irrigation and water supply, and influence settlement patterns. In the context of the master plan, riverbanks need careful planning to mitigate flood risks, protect ecosystems, and provide recreational spaces. Water bodies might be designated as conservation zones or integrated into green infrastructure for sustainable urban development.

The district's geomorphological features interact with human activities and urban planning decisions. The master plan should take into account the preservation of natural landscapes, sustainable land use, disaster resilience, and infrastructure development. By understanding and respecting the geomorphology of Tiruppur, the master plan can guide the district's growth while maintaining its environmental integrity, cultural heritage, and quality of life for its residents.



Map 10 Major Road Networks, Tiruppur LPA



Map 11 Geomorphology in Tiruppur LPA

Source - bhukosh.gsi.gov.in › Bhukosh › Public

2.7.7 Surface Water

Surface water plays a crucial role in meeting the water demands of Tiruppur town. The primary source of surface water in the area is the Noyyal River, along with several smaller streams and water bodies. These water sources contribute significantly to the town's water supply for various purposes, including domestic, industrial, and agricultural needs.

The Noyyal River, originating in the Western Ghats, flows through Tiruppur district, providing a vital water resource for the town. It supports agricultural activities in the region and serves as a source of water for irrigation. However, over the years, the Noyyal River has faced challenges such as pollution from industrial discharge and untreated sewage, which have impacted its water quality.

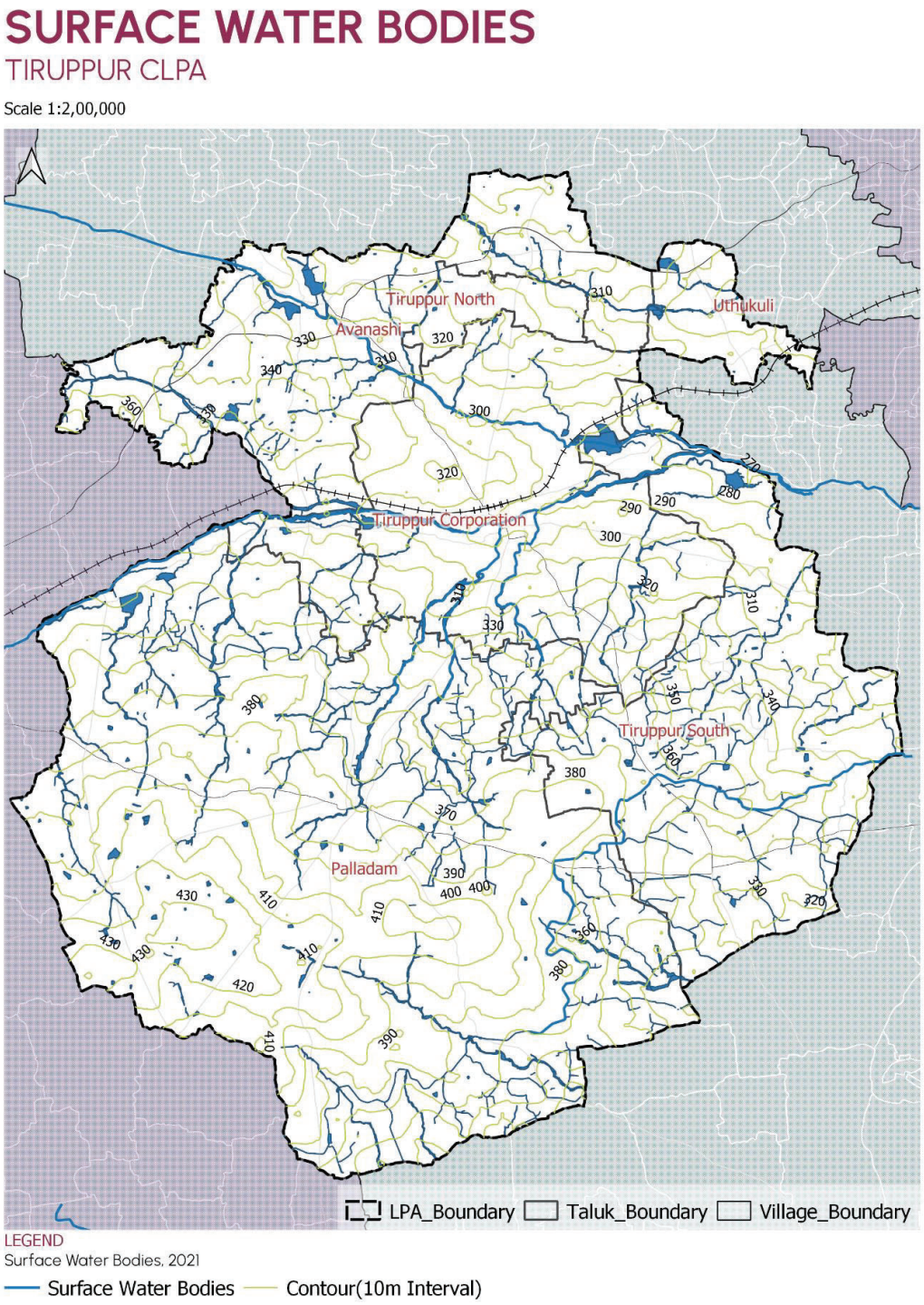
Urbanization and industrial growth in Tiruppur town have also exerted pressure on surface water resources. Rapid urban development can lead to increased runoff, erosion, and sedimentation in water bodies, affecting their overall health and functioning. In some cases, encroachments near water bodies and improper waste disposal practices have further deteriorated their condition.

To address these challenges and ensure a sustainable supply of clean surface water, the town needs comprehensive water management strategies. This includes effective pollution control measures to prevent industrial and domestic contaminants from entering water bodies. Sewage treatment plants and proper waste management systems are crucial components of safeguarding the water quality of the Noyyal River and other water sources.

The Tiruppur Municipal Corporation, in collaboration with environmental agencies and community stakeholders, should implement initiatives that focus on conservation, restoration, and sustainable use of surface water resources. This can involve promoting green infrastructure, creating buffer zones along water bodies, and raising awareness about the importance of preserving these water sources.

By integrating these efforts into the town's planning and development, Tiruppur can ensure the availability of clean and sufficient surface water resources for its growing population while maintaining the ecological balance

of its water bodies. It's essential to approach surface water management holistically, considering both environmental conservation and the socioeconomic needs of the community.



Map 12 Surface Water Bodies in Tiruppur LPA

2.7.8 Ground Water

Groundwater plays a vital role in meeting the water demands of Tiruppur district, providing water for various purposes such as agriculture, industry, and domestic use. However, the groundwater situation in the district requires careful management and conservation due to issues of overexploitation and semi-critical conditions.

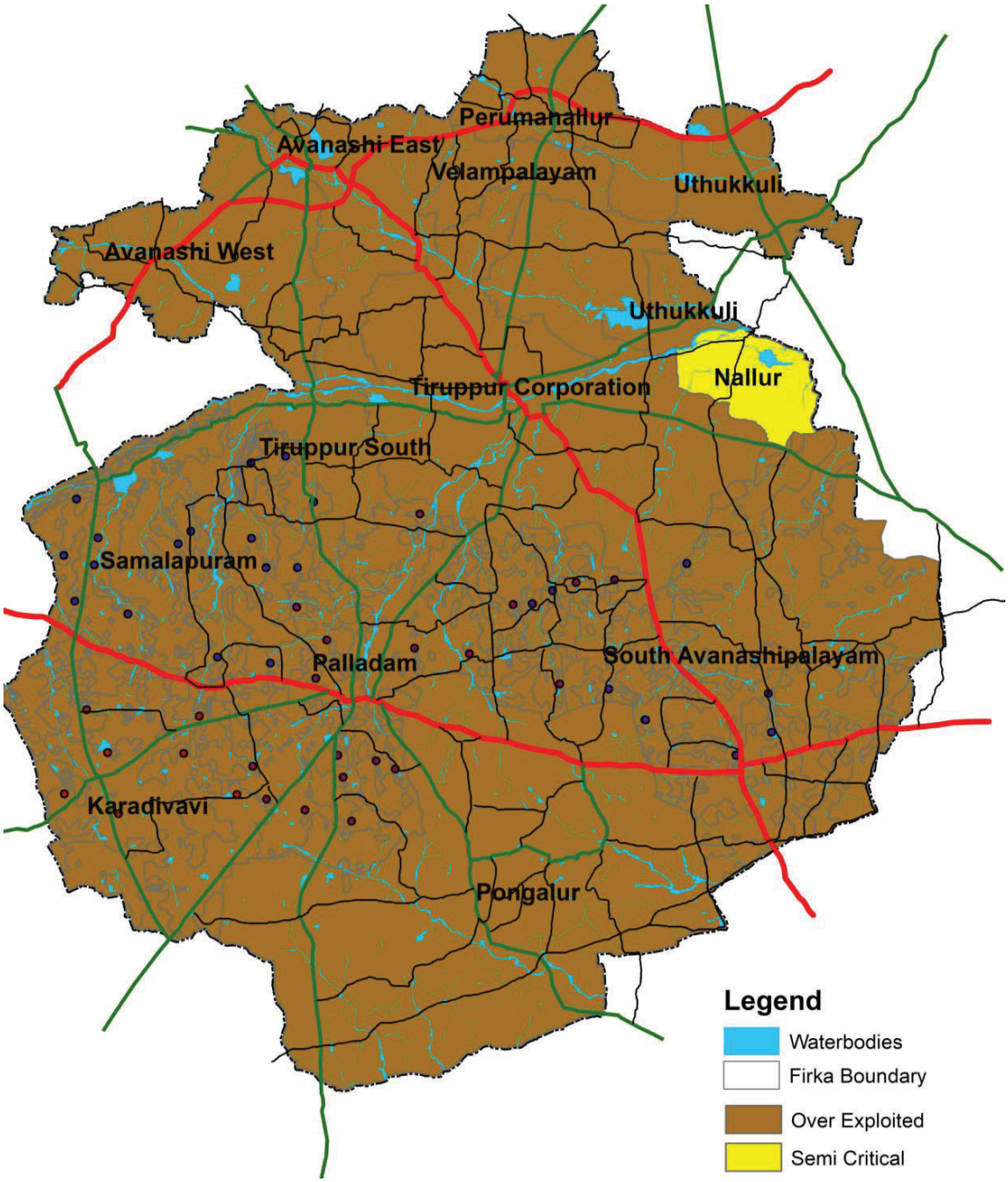
Within the Tiruppur Local Planning Area (LPA), which comprises 13 administrative divisions known as firkas(Complete or Partial), the groundwater scenario is mixed. Among these firkas, Nallur firka is categorized as semi-critical, indicating that the groundwater levels and availability are moderately stressed. This situation may be influenced by factors such as increased demand, seasonal variations, and geological characteristics.

More concerning is the fact that the remaining 12 firkas are categorized as overexploited. Overexploitation occurs when the extraction of groundwater exceeds the natural replenishment rate, leading to declining water levels and potential long-term consequences for water availability. Overexploited firkas face increased risk of groundwater depletion, reduced water quality, and environmental impacts like land subsidence.

Several factors contribute to the overexploitation of groundwater in these firkas.

To address the challenges, comprehensive and sustainable groundwater management strategies are crucial. These may include implementing water conservation measures, encouraging the use of alternative water sources, promoting efficient irrigation practices in agriculture, and enforcing stricter regulations on groundwater extraction. Developing and implementing a detailed groundwater management plan that takes into account local hydrogeological conditions and water demands is essential.

Public awareness campaigns and community involvement are also vital components in ensuring the success of groundwater management efforts. By educating residents, industries, and farmers about the importance of responsible groundwater use and the potential consequences of overexploitation, stakeholders can collectively contribute to preserving this precious resource.



Map 13 Ground water in Tiruppur LPA

Source – www.cgwb.gov.in

In summary, while Nallur firka experiences semi-critical groundwater conditions, the more widespread issue of overexploitation in the other 12 firkas demands immediate attention. Through a combination of sustainable water management practices, regulatory measures, and community engagement, Tiruppur can work towards ensuring the long-term availability and health of its groundwater resources.

2.7.9 Humidity

In Tiruppur, there is a notable pattern of humidity levels throughout the year. From June to December, the humidity remains relatively high and stable, creating a more consistent and flat humidity curve. During this period, the humidity levels are likely to stay elevated, contributing to a more humid environment. This is characteristic of the monsoon and post-monsoon seasons when atmospheric moisture is generally higher.

However, between January and June, there is a mild undulating pattern in the humidity levels. This period is marked by a transition from the dry season to the onset of the monsoon. The humidity levels experience subtle fluctuations, varying between 50% and 70%. This range indicates the moderate to slightly elevated humidity experienced during these months. These mild undulations might correspond to changing weather patterns, local atmospheric conditions, and the gradual increase in moisture content as the region approaches the monsoon season.

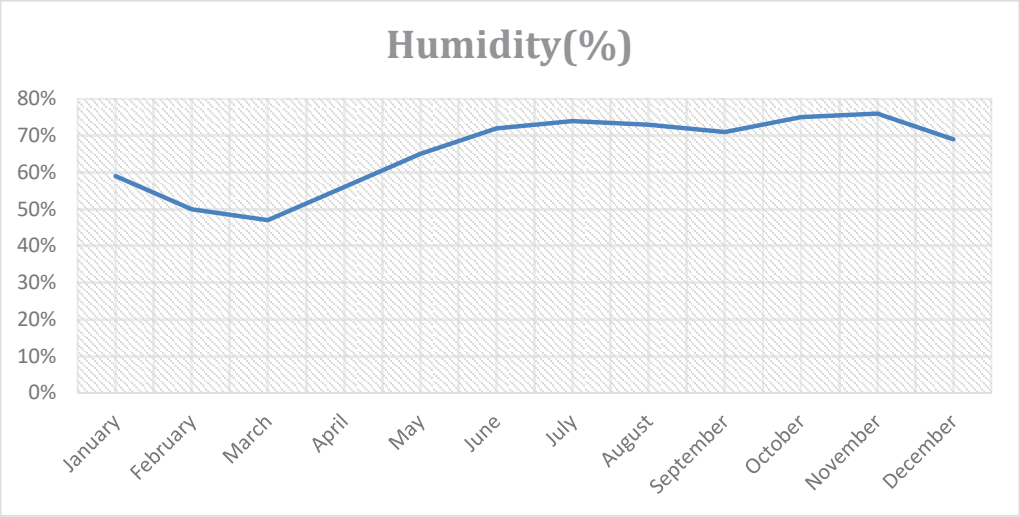


Figure 7 Humidity (in %), Tiruppur District

Source - bhukosh.gsi.gov.in › Bhukosh › Public

2.7.10 Wind Direction

The prevailing wind direction in Tiruppur district, Tamil Nadu, is influenced by the monsoon patterns and regional climatic conditions. Generally, the wind direction changes with the shift between the summer and winter monsoons.

Here's an overview:

Summer Monsoon (South-West Monsoon): From June to September, Tiruppur experiences the summer monsoon. During this period, the prevailing wind direction is from the southwest, known as the "southwest monsoon winds." These winds bring moisture-laden air from the Indian Ocean, resulting in increased rainfall across the region.

Transition Period: In the months of October and November, there is a transitional period between the summer and winter monsoons. The wind direction during this time can vary as the monsoon retreats and atmospheric conditions change.

Winter Monsoon (North-East Monsoon): From October to December, Tiruppur experiences the northeast monsoon, also known as the retreating monsoon or the winter monsoon. The prevailing wind direction during this period is from the northeast, bringing cooler and drier air from the landmass. This season is associated with significant rainfall in the region.

Post-Monsoon Period: From January to April, the winds are relatively calmer, and the prevailing wind direction might not be as pronounced. Local

weather patterns and atmospheric conditions play a more significant role during this period.

03

DEMOGRAPHY

3 DEMOGRAPHY

3.1 DEMOGRAPHIC CHARACTERISTICS

Tiruppur Local Planning area has a population of 1359814 for an area of 1031.66 sq.km as per 2011 census. Density of the LPA is 1319 persons per Sq.km. Total Households of the LPA is 380699 having sex ratio of 976. Literacy rate of the LPA is 73.99%.

Tiruppur District, with a total population of 2,479,052, has a significant urban presence, constituting 61.36% of its population. The Tiruppur LPA, while still predominantly urban with 54.08% of its population residing in urban areas, includes a substantial rural population of 624,478. The LPA, therefore, contributes significantly to the district's overall population, accounting for 54.85% of the total. Geographically, Tiruppur District spans 5,187 square kilometers, while the LPA covers a smaller area of 1,031.66 square kilometers, making it an urbanized enclave within the district.

Despite its smaller size, the LPA maintains a unique balance between urbanization and space, accommodating a substantial portion of the district's population. Tiruppur District exhibits a population density of 478 persons per square kilometer, while the Tiruppur LPA is more densely populated, with a density of 1,318 persons per hectare. This highlights the concentrated urban nature of the LPA compared to the broader district. In terms of households, the LPA contributes 53.60% of the district's total households, underscoring its importance within the district. Both Tiruppur District and the LPA maintain balanced sex ratios in urban areas, with 984 and 971 females per 1000 males, respectively. In rural areas, the sex ratio remains balanced as well, with 999 females per 1000 males in the district and 981 in the LPA. Regarding literacy rates, Tiruppur District has a literacy rate of 78.68%, while the LPA has a slightly lower literacy rate of 73.99%, possibly reflecting variations in access to educational resources and opportunities. Both the district and the LPA have significant populations of Scheduled Castes and Scheduled Tribes, with 36.22% and 29.75% of the district's population, respectively, belonging to these categories. These figures reflect the socio-cultural diversity and inclusion efforts within both areas.

Table 7 Demographic Profile, Tiruppur LPA

DEMOGRAPHIC PROFILE	TIRUPPUR CORPORATION	PALLADAM MUNICIPALITY	THIRUMURUGANPOONDI MUNICIPALITY	REST OF LPA	TOTAL LPA
Population	8,52,711	42,225	31,528	4,33,350	**13,59,814**
Area in Sq.km	159.32	19.42	14.50	838.42	**1031.66**
Density	5,352	2,174	2,174	517	**1,318**
Male	4,34,493	21,018	15,949	2,16,852	**6,88,312**
Female	4,18,218	21,207	15,579	2,16,498	**6,71,502**
Sex Ratio	963	1,009	977	998	**976**
Literacy Rate	76.66%	74.08%	74.05%	68.74%	**73.99%**
Total Workers	3,96,135	18,375	14,090	2,21,409	**6,50,009**
Workforce Participation Rate	46.46%	43.52%	44.69%	51.09%	**47.80%**
% of Main workers to total Workers	94.52%	92.05%	96.85%	92.61%	**93.85%**
% of Marginal workers to Total Workers	5.48%	7.95%	3.15%	7.39%	**6.15%**

DEMOGRAPHIC PROFILE	TIRUPPUR CORPORATION	PALLADAM MUNICIPALITY	THIRUMURUGANPOONDI MUNICIPALITY	REST OF LPA	TOTAL LPA
Cultivators & Agri. Labours	5,042	931	389	54,323	**60,685**
% of Cultivators & Agri. Labours to total workers	1.27%	5.07%	2.76%	24.54%	**9.34%**
Household workers	8,125	318	250	9,000	**17,694**
% of Household workers to total workers	2.05%	1.73%	1.77%	4.07%	**2.72%**
Other Trade Workers	3,82,968	17,126	13,451	1,58,086	**5,71,630**
% of Other Workers to Total Workers	96.68%	93.20%	95.46%	71.40%	**87.94%**

SOURCE – CENSUS OF INDIA

In summary, Tiruppur District and its Local Planning Authority display unique characteristics, with the LPA representing a densely populated urban enclave within the district. While the district serves as a broader administrative region, the LPA plays a vital role in the district's overall demographic composition and development dynamics, contributing significantly to its population and socio-economic landscape.

3.2 POPULATION DISTRIBUTION

Tiruppur Corporation has a population of 444352 in which 227311 males and 217041 females as per 2011 census which is the core of the Local Planning Area. Total Urban Population is 735336 and rural population of the LPA is 624478. Population of the villages and towns are mapped and presented in Map 8.

Table 8 Population (by Administration), Tiruppur LPA

TOWNS/ VILLAGES	AREA IN SQ.KM	2011 POPULATION	2011 POPULATION MALE	2011 POPULATION FEMALE
Tiruppur Corporation	159.32	852711	434493	418218
Municipalities	34.37	73753	36967	36786
Town Panchayats	35.03	59689	28697	30992
Villages in LPA	802.94	373661	188155	185506
Total LPA	**1031.66**	**13,59,814**	**6,88,312**	**6,71,502**

SOURCE – CENSUS OF INDIA

Tiruppur Local Planning Authority (LPA) encompasses a diverse range of urban and rural settlements, each contributing to the rich tapestry of the region. Let's take a closer look at the key towns and villages within the LPA, including their area and population statistics from the 2011 census.

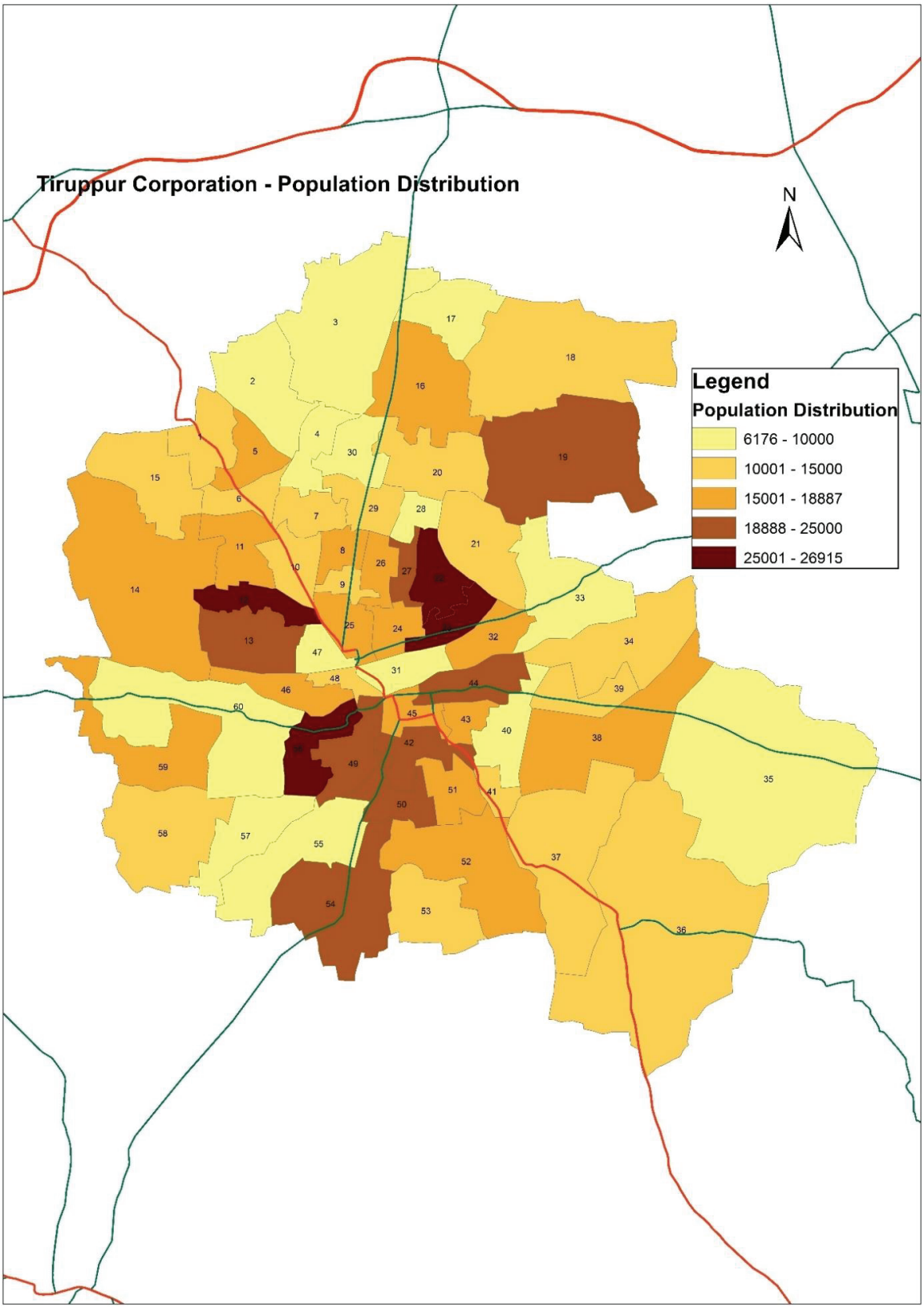
As the principal urban center within the LPA, Tiruppur Corporation stands as a bustling hub, with a significant population of over 852,000 in 2011. Its urban character is reflected in its population distribution, nearly evenly balanced between males and females.

The municipalities within the LPA, with their modest area, are home to a population of around 73,753 in 2011, with a relatively even distribution between males and females.

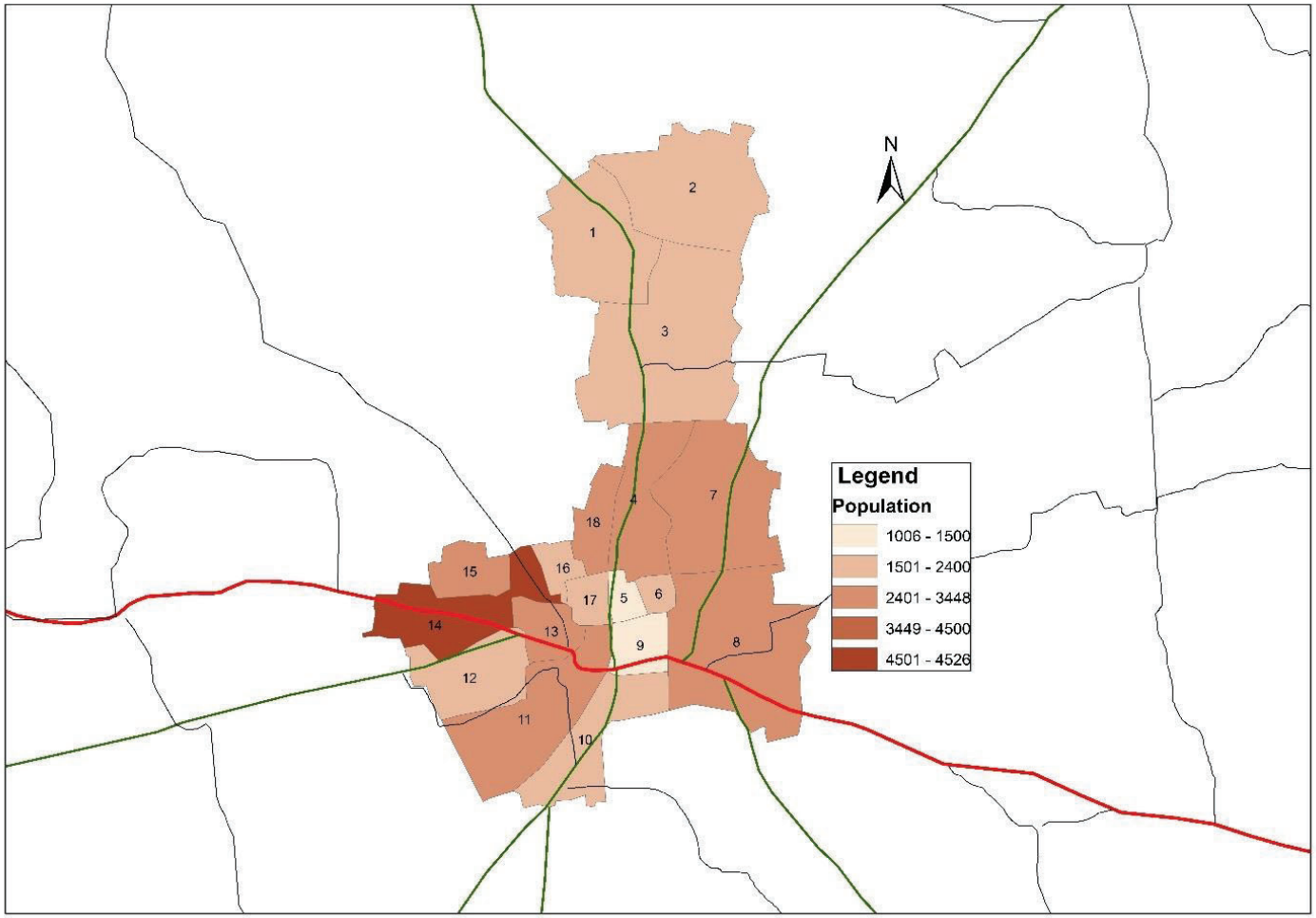
Town Panchayats, with their focus on local governance, house a population of approximately 59,689 in 2011, with a slightly higher female population.

The villages within the LPA collectively cover a substantial area and accommodate a population of around 373,661 in 2011, with a relatively balanced gender distribution.

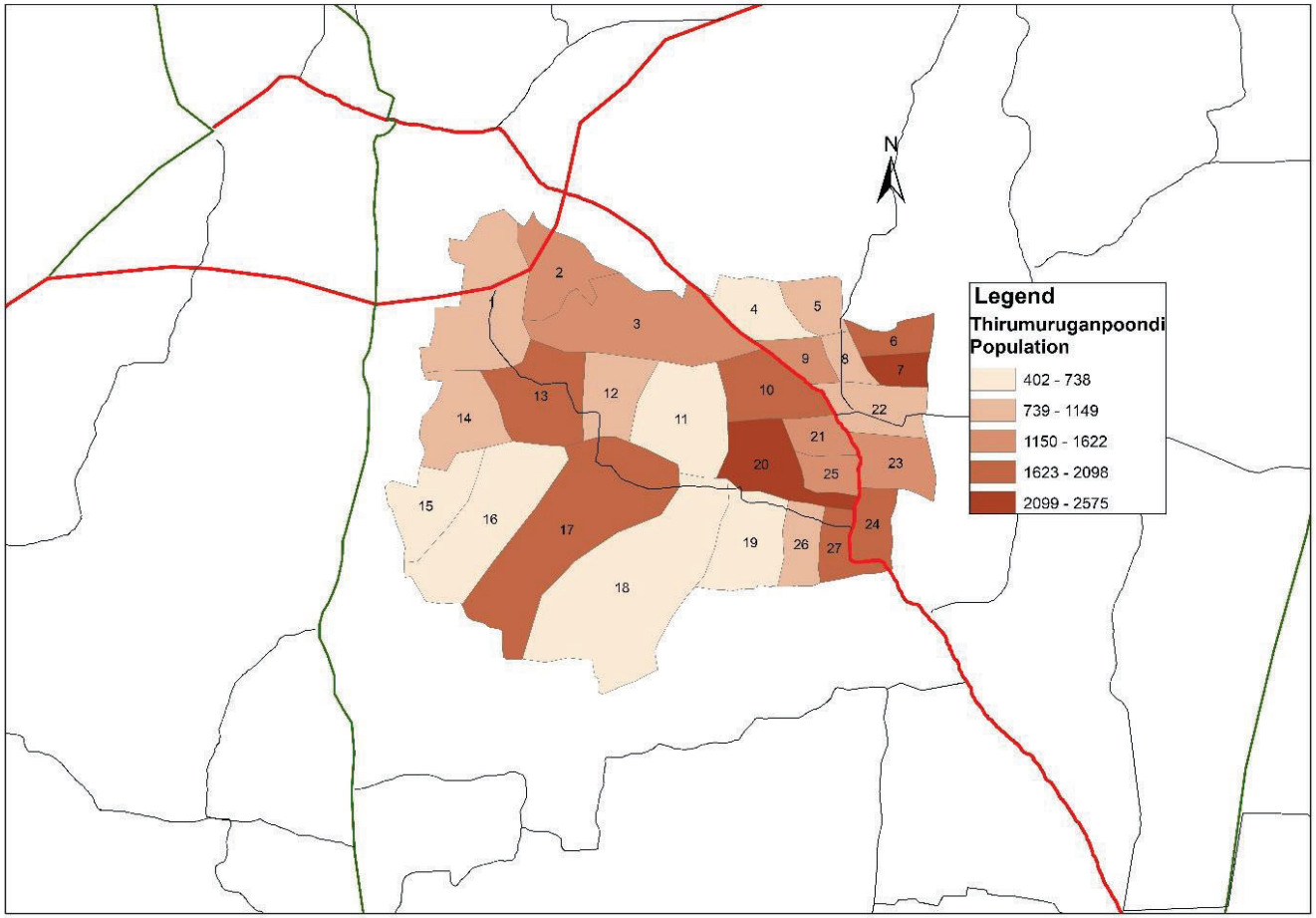
In summary, Tiruppur Local Planning Authority is a region characterized by its diverse urban and rural landscapes. Tiruppur Corporation, the municipalities, town panchayats, and villages together form a mosaic of communities contributing to the LPA's overall population, with a near balance in gender ratios. This demographic diversity underscores the region's significance and the complex dynamics that shape it.



Map 14 Map Showing Population Distribution in Tiruppur Corporation



Map 15 Map Showing Population Distribution in Palladam Municipality

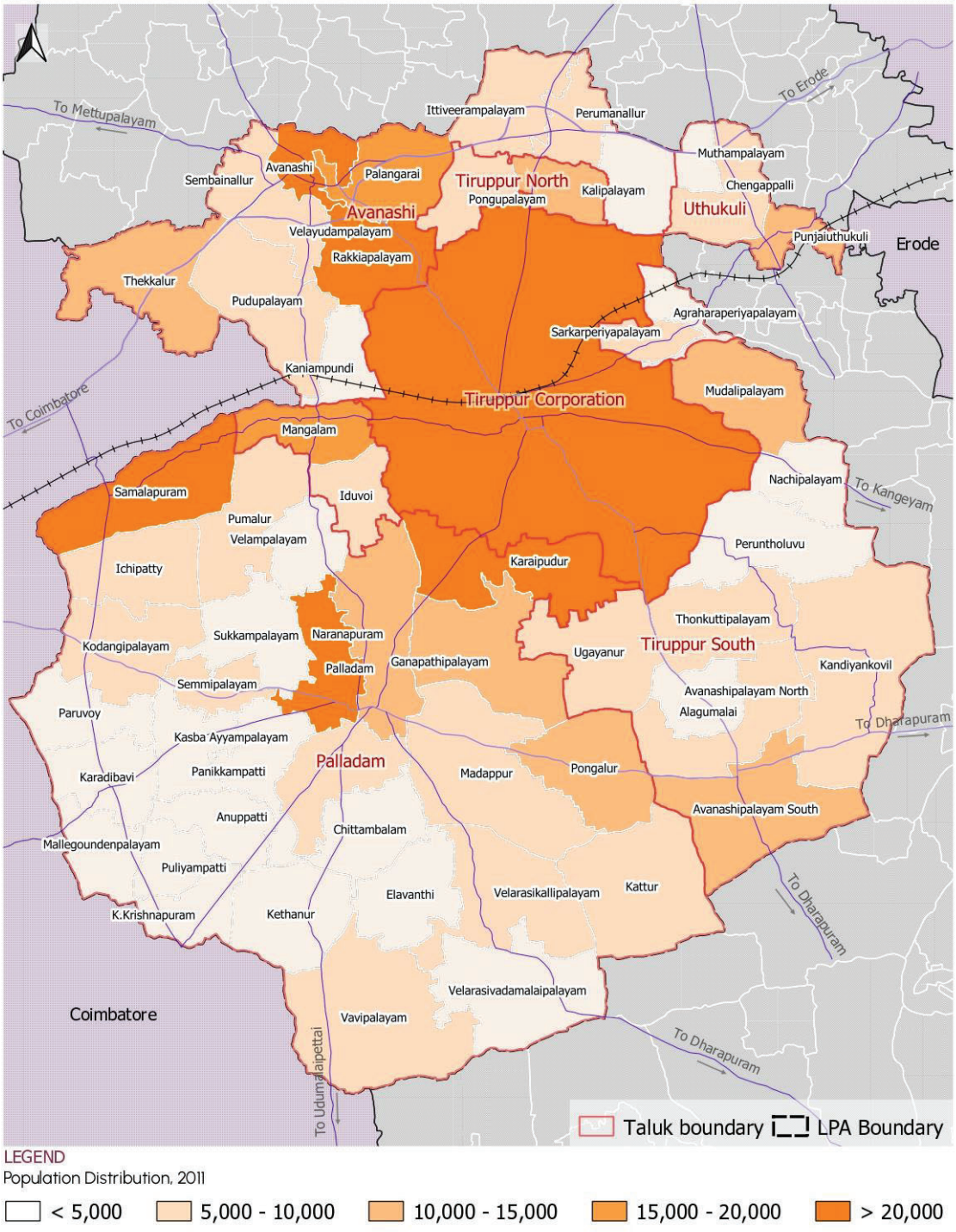


Map 16 Map Showing Population Distribution in Thirumuruganpoondi Municipality

POPULATION DISTRIBUTION

TIRUPPUR CLPA

Scale 1:2,00,000



LEGEND

Population Distribution, 2011

< 5,000 | 5,000 - 10,000 | 10,000 - 15,000 | 15,000 - 20,000 | > 20,000

Map 17 Population Distribution, Tiruppur LPA

3.3 POPULATION GROWTH TREND

Population growth trend of the LPA is in the increasing trend. Examining the population growth rates of towns and villages within Tiruppur Local Planning Authority (LPA) provides valuable insights into the evolving demographic dynamics of this region over the past three decades, from 1991 to 2011.

Table 9 Decadal Population by Administration, Tiruppur LPA

TOWNS/VILLAGES	POPULATION			
	2011	2001	1991	1981
Tiruppur Corporation	852711	534333	333952	220595
Municipalities	73753	48573	34131	23642
Town Panchayats	59689	45335	37175	31779
Villages in LPA	373661	254641	194875	176417
Total LPA	**13,59,814**	**8,82,882**	**6,00,133**	**4,52,433**

Table 10 Decadal Population Growth Rate by Administration, Tiruppur LPA

TOWNS/VILLAGES	GROWTH RATE 2011	GROWTH RATE 2001	GROWTH RATE 1991
Tiruppur Corporation	59.58%	60.00%	51.39%
Municipalities	51.84%	42.31%	44.37%
Town Panchayats	31.66%	21.95%	16.98%
Villages in LPA	46.74%	30.67%	10.46%
Total LPA	**54.02%**	**47.11%**	**32.65%**

SOURCE – CENSUS OF INDIA

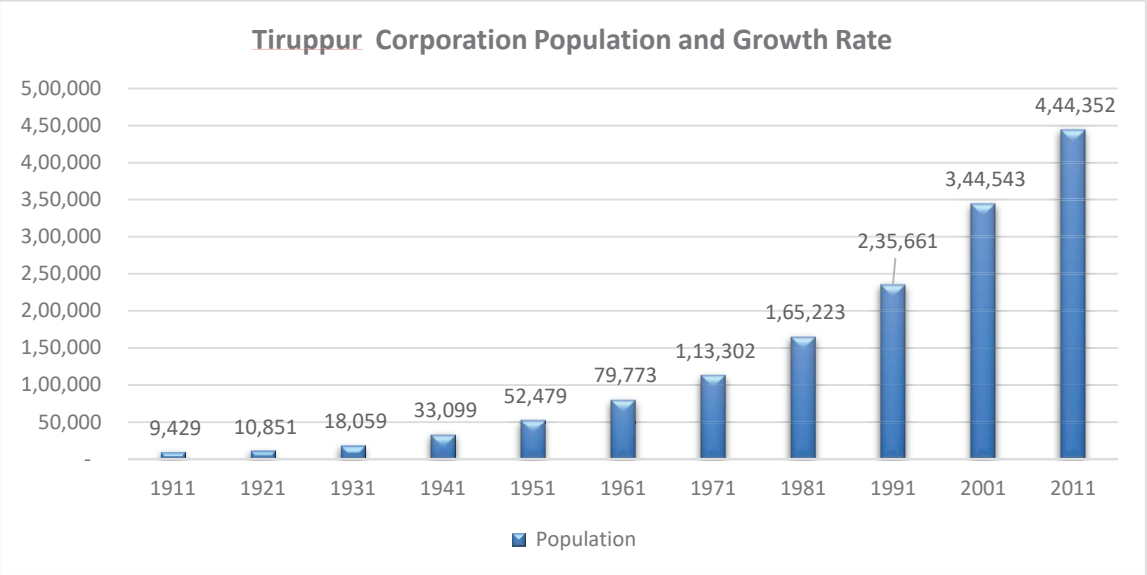


Figure 8 Population and Growth Rate , Tiruppur Corporation

Table 11 Population and Growth Rate, Tiruppur Corporation (1911-2011)

YEAR	POPULATION	GROWTH RATE
1911	9,429	
1921	10,851	15.08%
1931	18,059	66.43%
1941	33,099	83.28%
1951	52,479	58.55%
1961	79,773	52.01%
1971	1,13,302	42.03%
1981	1,65,223	45.83%
1991	2,35,661	42.63%
2001	3,44,543	46.20%
2011	4,44,352	28.97%

Early 20th Century Growth: Tiruppur Corporation began the 20th century with a population of 9,429 in 1911. The subsequent decades witnessed a gradual increase, with a growth rate of 15.08% in the 1921-1931 period.

Rapid Expansion (1931-1951): The most significant growth occurred between 1931 and 1951, as the population surged from 18,059 to 52,479,

recording a remarkable growth rate of 83.28%. This period likely reflects increased economic activities and urbanization.

Post-Independence Development: In the post-independence era, from 1951 to 1981, Tiruppur Corporation experienced sustained growth, with growth rates consistently above 40%. This could be attributed to industrialization, economic opportunities, and improved infrastructure.

Late 20th Century to Present: The growth rate moderated in the late 20th century and early 21st century, indicating a more stabilized phase. Nevertheless, the absolute population continued to rise significantly, reaching 4,44,352 in 2011.

Implications and Trends:

Urbanization Dynamics: The high growth rates in the mid-20th century suggest a rapid urbanization process, possibly driven by industrialization and employment opportunities.

Stabilization and Development: The moderate growth rates in the late 20th century may signify a period of stabilization, with a focus on infrastructural development, social services, and economic diversification.

Policy Considerations: Understanding these demographic trends is essential for urban planning, resource allocation, and policy formulation to ensure sustainable development in Tiruppur Corporation.

This comprehensive analysis provides a nuanced understanding of Tiruppur Corporation's population growth, offering valuable insights for urban planners, policymakers, and researchers invested in the sustainable development of this dynamic urban center.

Tiruppur Corporation saw a population growth rate of 59.58% from 2001 to 2011, indicating a significant increase in urban residents during this period. Between 1991 and 2001, the growth rate was 60.00%, reflecting a continued trend of urbanization. In the earlier decade from 1991 to 2001, the growth rate was 51.39%, highlighting a steady pace of population expansion in the city.

Table 12 Population and Growth Rate, Palladam Municipality (1921-2011)

YEAR	POPULATION	GROWTH RATE
1921	6,506	
1931	6,987	7.39%
1941	7,654	9.55%
1951	9,238	20.70%
1961	10,506	13.73%
1971	12,836	22.18%
1981	16,528	28.76%
1991	22,406	35.56%
2001	30,016	33.96%
2011	42,225	40.67%

Early 20th Century Growth: Palladam initiated the 20th century with a population of 6,506 in 1921. The subsequent decades witnessed a steady increase, setting the stage for further development.

Moderate Growth (1921-1951): The growth rates during the initial decades remained relatively moderate, with a notable uptick of 20.70% in the 1941-1951 period. This may suggest gradual urbanization and improved living conditions.

Acceleration Post-Independence: Significant growth occurred post-independence, with growth rates consistently exceeding 20%. The 1971-1981 period saw a substantial increase of 28.76%, indicating rapid urban

Late 20th Century Surge: The late 20th century witnessed accelerated growth, with growth rates exceeding 30% in the 1981-1991 and 2001-2011 decades. This surge may be attributed to increased economic activities and urbanization.

Implications and Trends:

Urbanization and Economic Growth: The consistently high growth rates suggest a correlation between urbanization, economic opportunities, and population expansion in Palladam Municipality.

Infrastructure and Services: The surge in growth rates, especially in the late 20th century, underscores the need for robust infrastructure development and essential services to cater to the burgeoning population.

Policy Considerations: Palladam's demographic trends provide valuable insights for policymakers, emphasizing the importance of sustainable urban planning and development strategies to accommodate the evolving needs of the municipality.

This comprehensive analysis sheds light on Palladam Municipality's remarkable journey of growth and development, offering crucial insights for urban planners, policymakers, and researchers invested in ensuring the sustainable progress of this vibrant urban center.

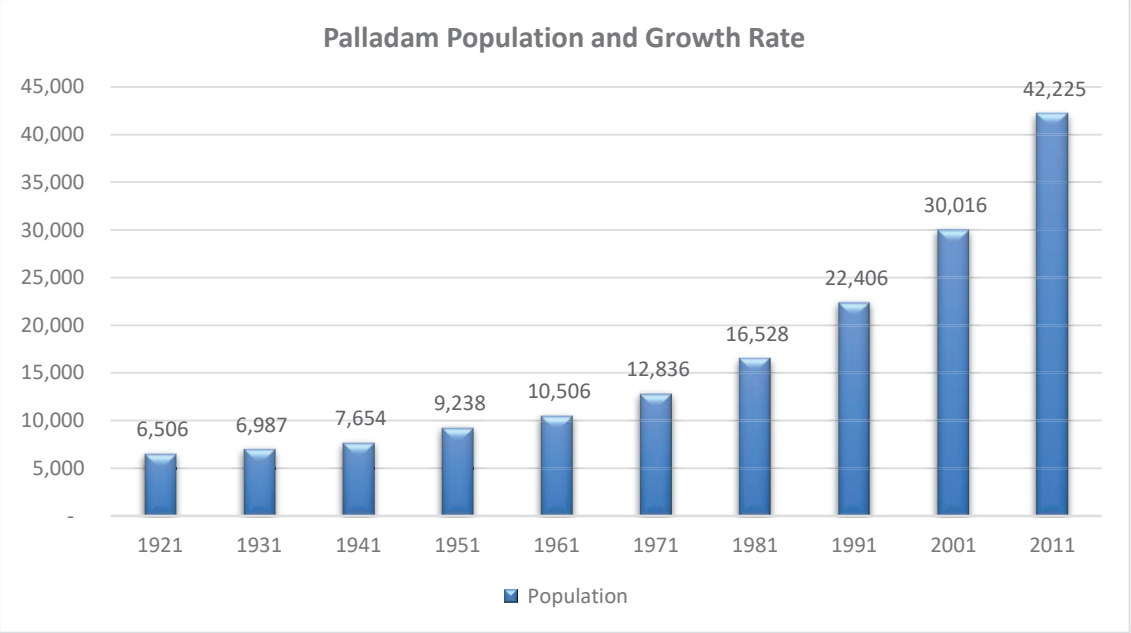


Figure 9 Population and Growth Rate, Palladam Municipality

Figure 10 Population and Growth Rate, Thirumuruganpoondi Municipality

The municipalities within the LPA experienced a growth rate of 51.84% from 2001 to 2011, indicating substantial urban development and population growth. In the period from 1991 to 2001, the growth rate was 42.31%, showcasing a relatively slower but still significant urban expansion. During the

decade from 1991 to 2001, the growth rate was 44.37%, demonstrating consistent urbanization trends.

Town Panchayats recorded a growth rate of 31.66% from 2001 to 2011, indicating a steady increase in their population. In the decade prior (1991-2001), the growth rate was 21.95%, signifying a relatively slower pace of population growth. Between 1991 and 2001, the growth rate was 16.98%, suggesting gradual urbanization.

The villages within the LPA experienced a notable growth rate of 46.74% from 2001 to 2011, indicating increased rural development and population expansion. In the decade from 1991 to 2001, the growth rate was 30.67%, indicating a significant rise in population during this period. Between 1991 and 2001, the growth rate was 10.46%, reflecting relatively slower growth compared to the subsequent decades.

Considering the entire Tiruppur LPA, the total population exhibited a growth rate of 54.02% from 2001 to 2011, highlighting overall robust population growth. In the decade from 1991 to 2001, the growth rate was 47.11%, demonstrating steady urban and rural development. Between 1991 and 2001, the growth rate was 32.65%, signifying a growing trend that would continue into the 21st century.

These population growth rates provide a comprehensive view of the changing demographics within Tiruppur LPA, showcasing the region's urbanization and development trends over the past three decades. The consistent growth, particularly in urban areas, underscores the dynamic nature of this locality.

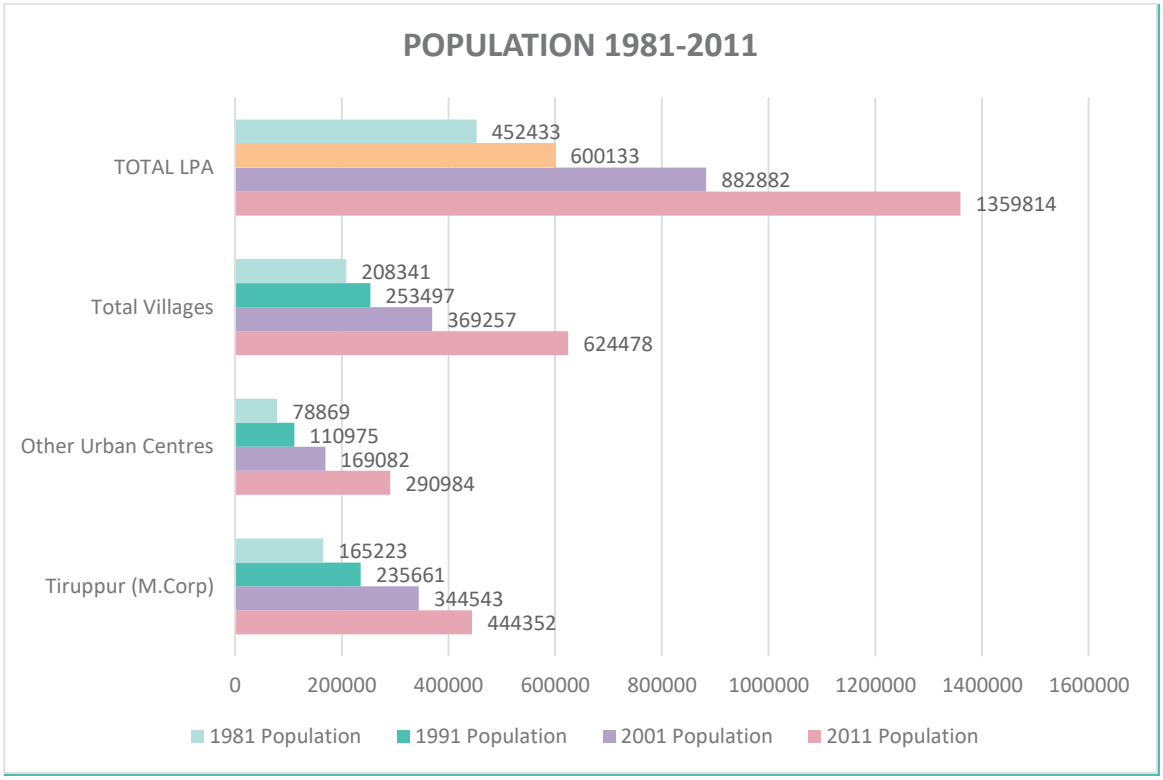


Figure 11 Population, Tiruppur LPA (1981-2011)

SOURCE – CENSUS OF INDIA

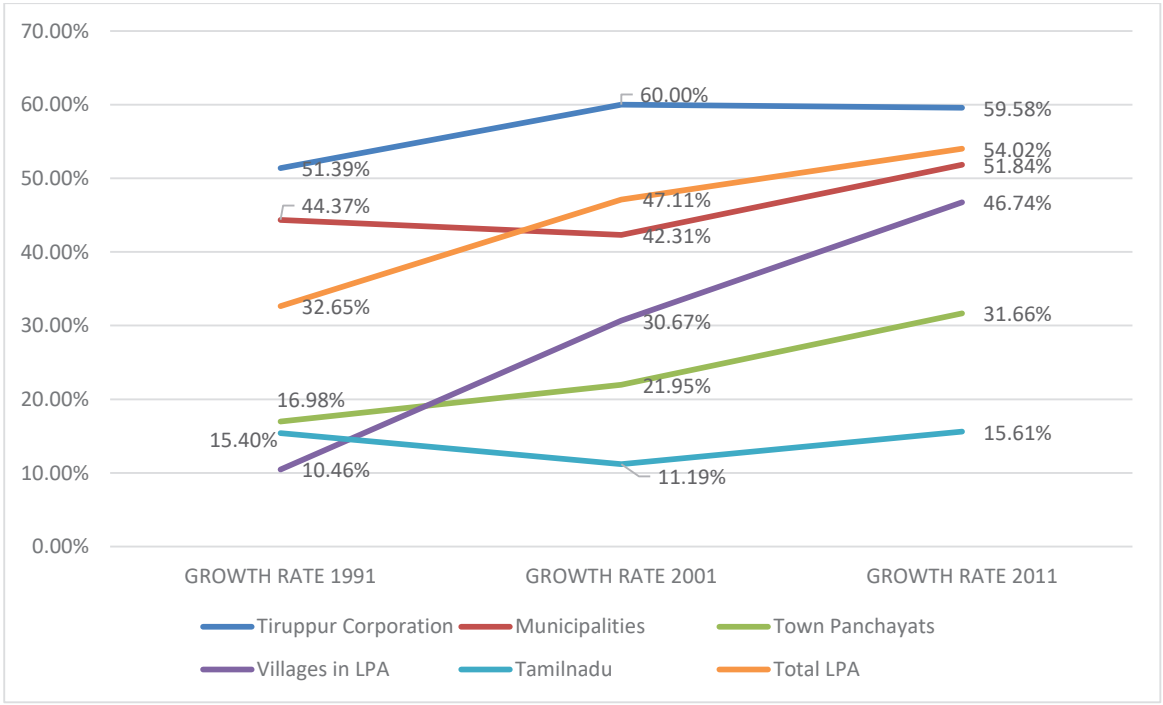
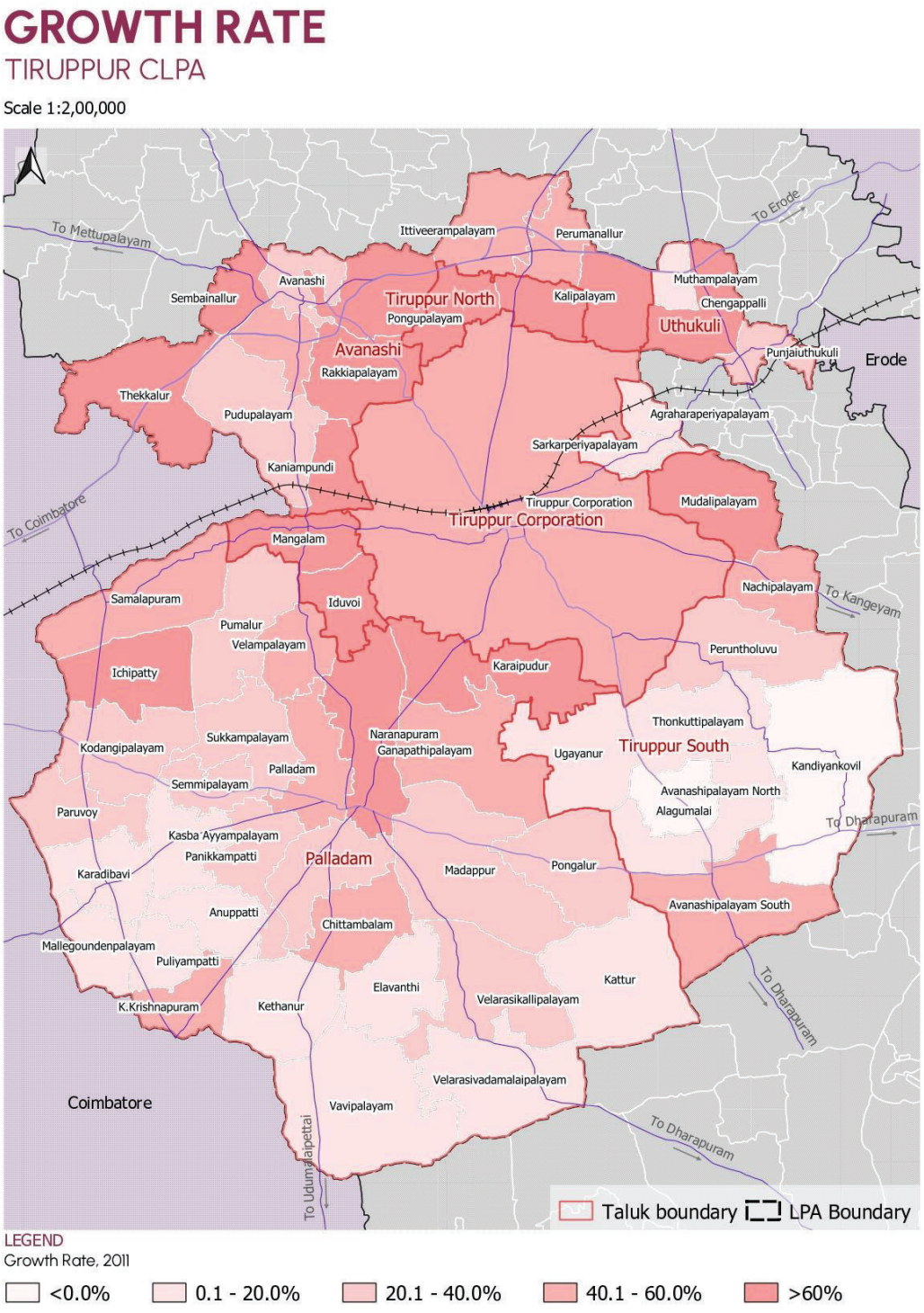


Figure 12 Growth Rate Tiruppur LPA (1981-2011)



Map 18 Population Growth Trend, Tiruppur LPA

3.4 POPULATION DENSITY

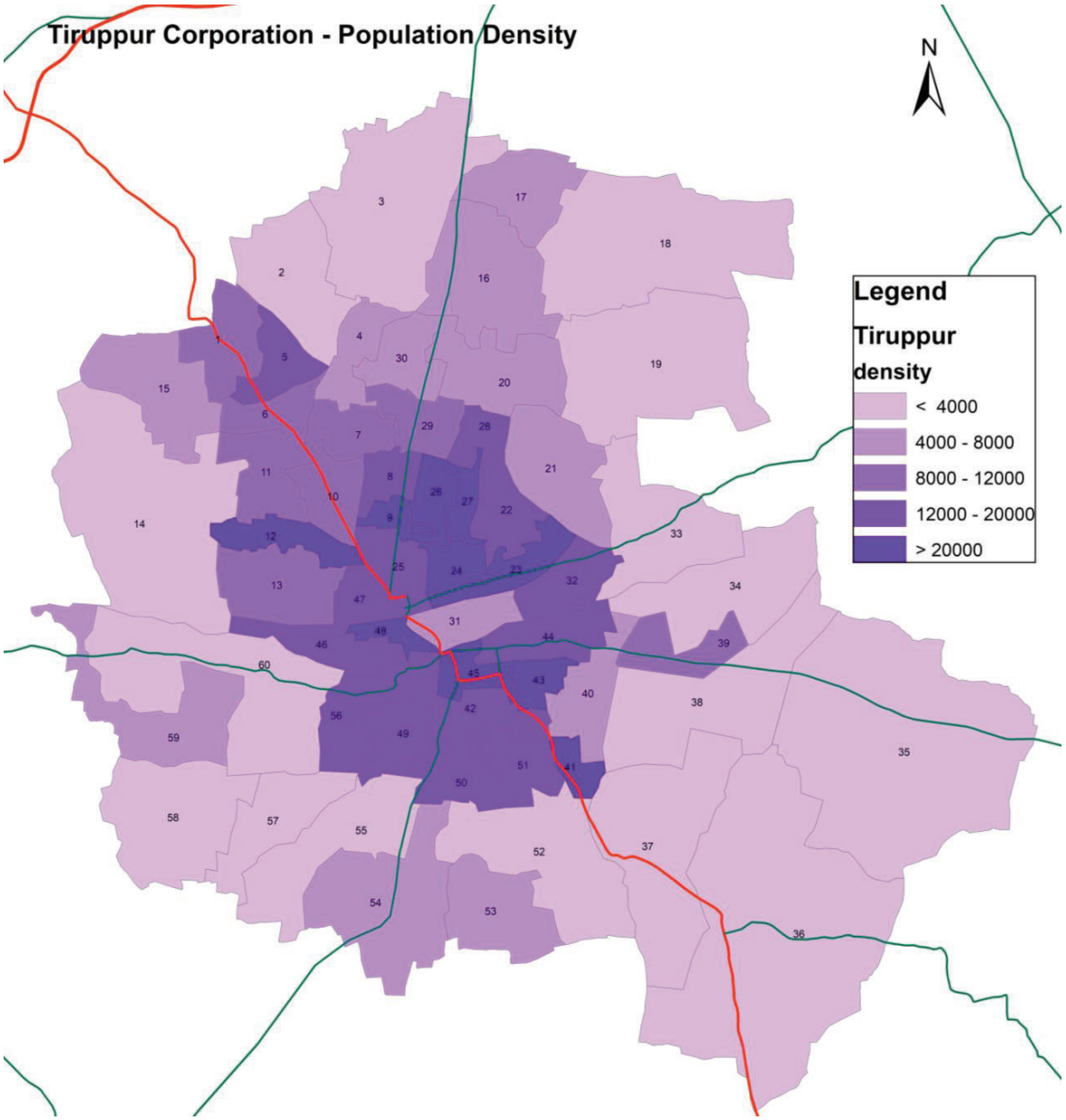
Population density is a critical demographic indicator that measures the concentration of people within a specific area. It is calculated by dividing the total population of an area by its land area in square kilometers. Population density is an essential metric for understanding the spatial distribution of people and the level of urbanization or rural development within a region. Higher population density often indicates more urbanized areas with greater infrastructure and economic activities, while lower density suggests more rural or sparsely populated regions.

Within the Tiruppur Local Planning Authority (LPA), various towns and villages exhibit varying levels of population density, reflecting the region's demographic diversity and spatial distribution.

Table 13 Area, Population and Density, Tiruppur LPA (2011)

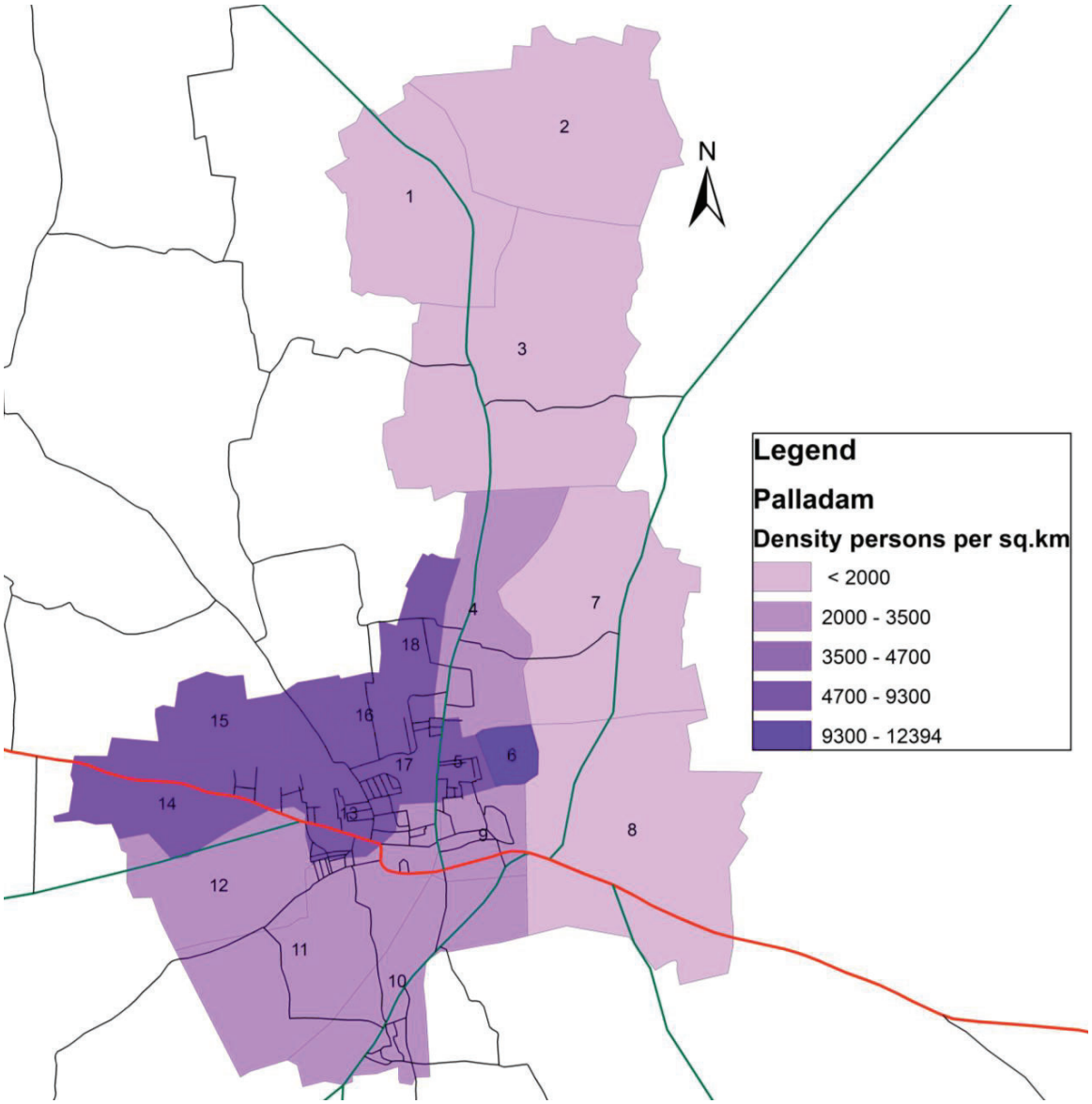
TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION	DENSITY
Tiruppur Corporation	159.32	852711	5352
Municipalities	34.37	73753	2146
Town Panchayats	35.03	59689	1704
Villages in LPA	802.94	373661	465
Total LPA	**1031.66**	**1359814**	**1318**

SOURCE – CENSUS OF INDIA

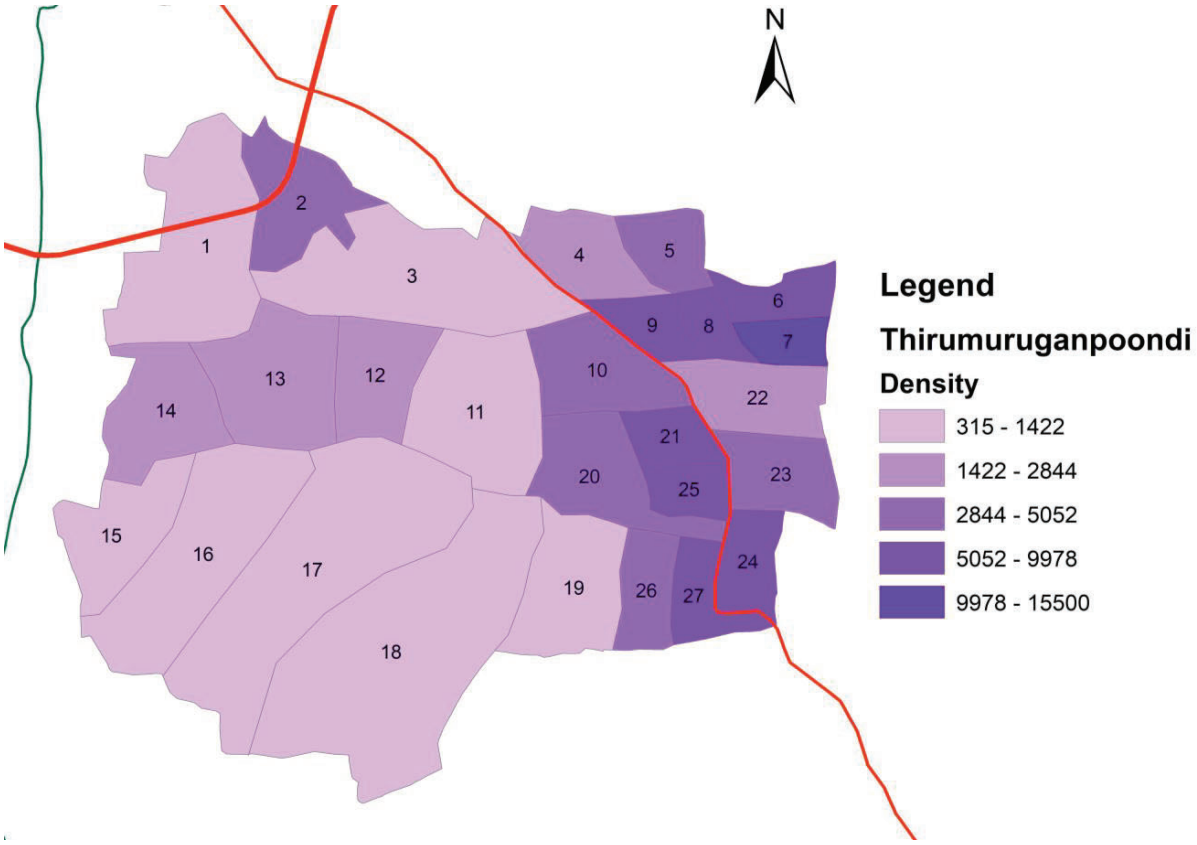


Map 19 Population Density, Tiruppur Corporation, 2011

Tiruppur Corporation: With an area of 159.32 square kilometers and a population of 852,711 in 2011, Tiruppur Corporation boasts a population density of 5,352 people per square kilometer. This high density underscores the urban nature of the city, indicating a concentration of economic and social activities within its boundaries.



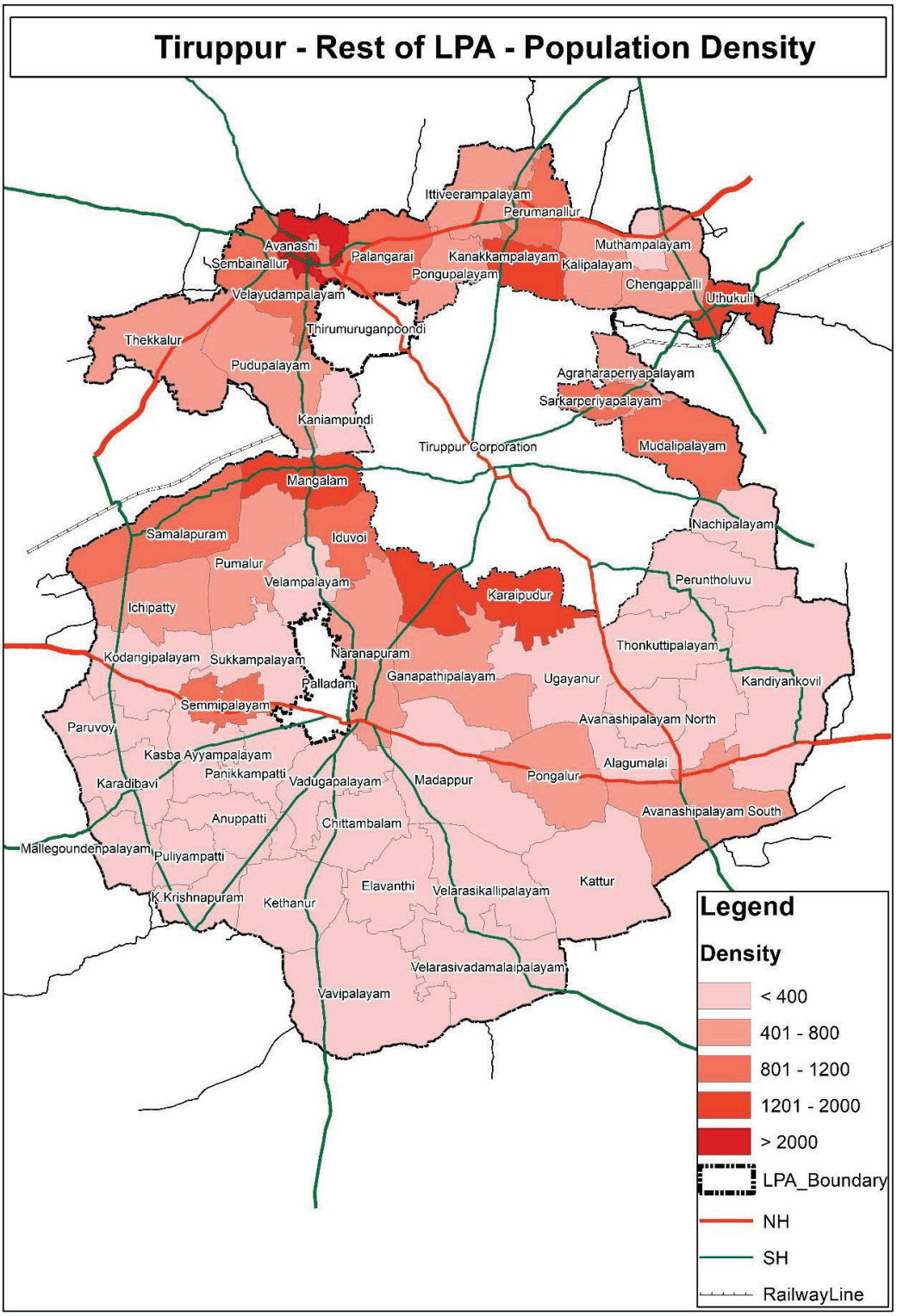
Map 20 Population Density, Palladam Municipality, 2011



Map 21 Population Density, Thirumuruganpoondi Municipality, 2011

Municipalities: The municipalities within the LPA cover a total area of 34.37 square kilometers and had a combined population of 73,753 in 2011, resulting in a population density of 2,146 people per square kilometer. While these areas are urbanized, their population density is relatively lower compared to the Corporation.

Town Panchayats: Town Panchayats, encompassing an area of 35.03 square kilometers, recorded a population of 59,689 in 2011, leading to a population density of 1,704 people per square kilometer. This indicates a moderate level of urbanization in these areas.

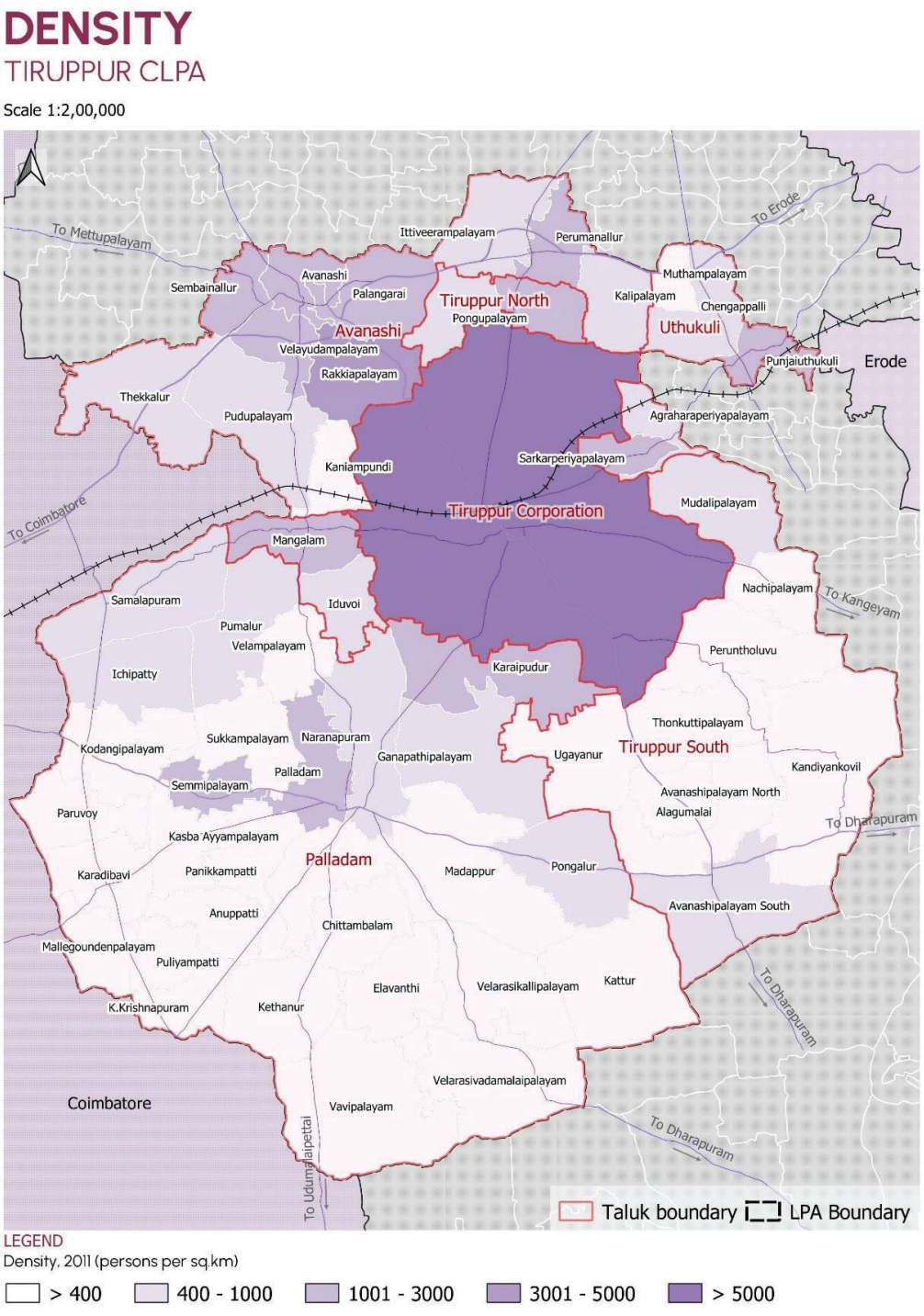


Map 22 Population Density of Village Panchayats within Tiruppur LPA, 2011

Villages in LPA: The villages spread across 802.94 square kilometers within the LPA accommodated a population of 373,661 in 2011, resulting in a lower population density of 465 people per square kilometer. These regions reflect a more rural or less densely populated character compared to the urban centers.

Total LPA: Considering the entire Tiruppur LPA, which spans an area of 1,031.66 square kilometers and had a population of 1,359,814 in 2011, the overall population density stands at 1,318 people per square kilometer. This statistic showcases the dynamic mix of urban and rural areas within the LPA.

In conclusion, population density serves as a valuable metric for understanding the distribution of people across various regions within Tiruppur LPA. It reflects the urbanization level, infrastructure development, and spatial characteristics of towns, municipalities, town panchayats, and villages, all of which contribute to the diverse socio-economic landscape of the region.



Map 23 Population Density, Tiruppur CLPA

3.5 SEX RATIO

Sex ratio has been defined as the number of females per 1000 males in the population; it is expressed as 'number of females per 1000 males.(Census 2011)

Examining the demographic data of towns and villages within Tiruppur Local Planning Authority (LPA) provides insights into the gender distribution and sex ratios in this region. In 2011, Tiruppur Corporation, as the principal urban center, had a total population of 852,711, with 434,493 males and 418,218 females, resulting in a sex ratio of 963 females per 1000 males.

Among the municipalities, the total population was 73,753, with 36,967 males and 36,786 females, yielding a balanced sex ratio of 995. In Town Panchayats, which represent smaller urban centers, the population stood at 59,689, with 28,697 males and 30,992 females, resulting in a notably higher sex ratio of 1080. The villages within the LPA had a combined population of 373,661, with 188,155 males and 185,506 females, reflecting a relatively balanced sex ratio of 986.

Considering the entire Tiruppur LPA, which accommodated a population of 1,359,814 in 2011, the sex ratio was 976 females per 1000 males. These sex ratio variations across towns and villages within the LPA highlight the diversity in gender demographics and are indicative of differing socio-cultural dynamics and urbanization levels within the region.

Table 14 Population and Sex Ratio, Tiruppur LPA (2011)

TOWN/VILLAGE	2011 POPULATION	2011 MALE POPULATION	2011 FEMALE POPULATION	SEX RATIO
Tiruppur Corporation	852711	434493	418218	963
Municipalities	73753	36967	36786	995
Town Panchayats	59689	28697	30992	1080
Villages in LPA	373661	188155	185506	986

TOWN/VILLAGE	2011 POPULATION	2011 MALE POPULATION	2011 FEMALE POPULATION	SEX RATIO
Total LPA	**13,59,814**	**6,88,312**	**6,71,502**	**976**

(Source: Census 2011)

3.6 LITERACY RATIO

As per Census, a person aged seven and above who can both read and write with understanding in any language, is treated as literate. A person, who can only read but cannot write, is not literate. *(Census 2011)*

Literacy is one of the important social indicators for development.

Table 15 Number of Literates, Tiruppur LPA (2011)

TOWNS/ VILLAGES	2011 POPULATION	LITERATES		ILLETERATES	
		PERSONS	%	PERSONS	%
Tiruppur Corporation	852711	653646	76.66	198037	23.22
Municipalities	73753	54629	74.07	19124	25.93
Town Panchayats	59689	44769	75.00	14920	25.00
Villages in LPA	373661	253120	67.74	120541	32.26
Total LPA	**1359814**	**1006164**	**73.9**	**352622**	**25.93**

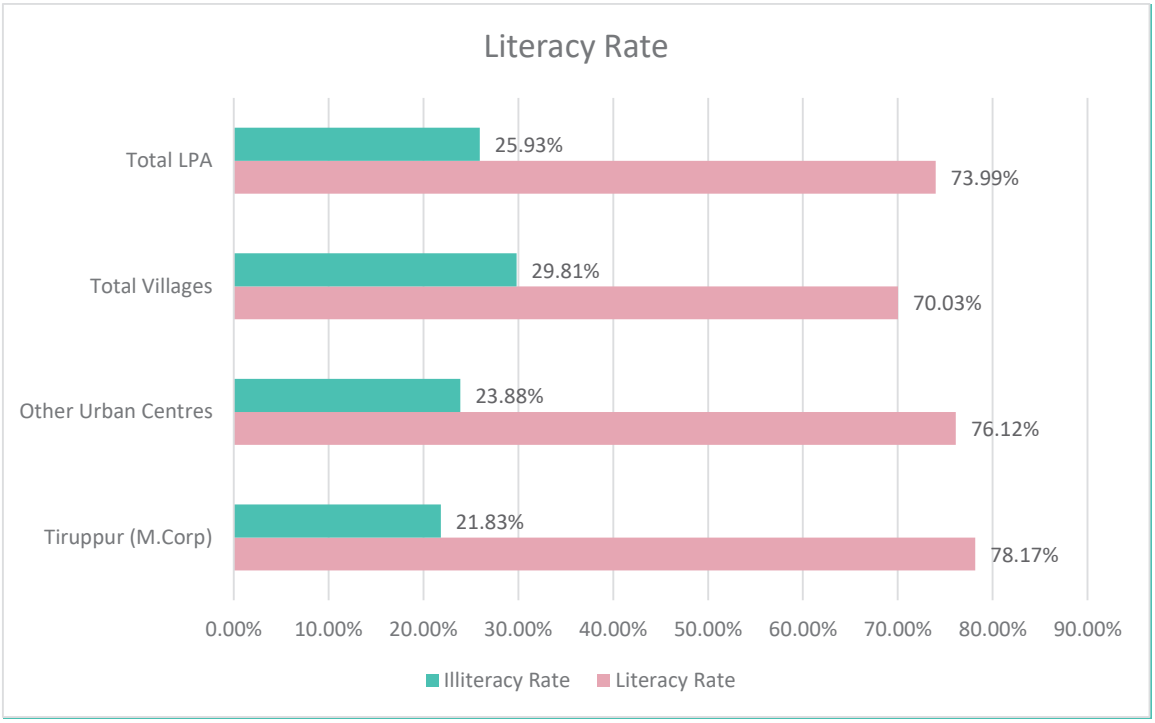


Figure 13 Literacy Rate, Tiruppur LPA (2011)

Analyzing the literacy rates and the corresponding numbers of literate and illiterate individuals across towns and villages within Tiruppur Local Planning Authority (LPA) provides valuable insights into the educational landscape of the region. In 2011, Tiruppur Corporation, as the major urban center, had a total population of 852,711, of which 653,646 individuals were literate, resulting in a literacy rate of 76.66%. This meant that 198,037 residents were categorized as illiterate, constituting an illiteracy rate of 23.22%.

Among the municipalities, the total population was 73,753, with 54,629 individuals being literate, yielding a literacy rate of 74.07%. Consequently, 19,124 individuals fell into the illiterate category, representing an illiteracy rate of 25.93%.

Town Panchayats, which are smaller urban centers, had a population of 59,689, with 44,769 individuals being literate, resulting in a relatively higher literacy rate of 75.00%. In this case, 14,920 individuals were considered illiterate, with an illiteracy rate of 25.00%.

Turning to the villages within the LPA, they collectively accommodated a population of 373,661, with 253,120 individuals classified as literate, yielding a literacy rate of 67.74%. Consequently, 120,541 residents were categorized as illiterate, reflecting an illiteracy rate of 32.26%.

Considering the entire Tiruppur LPA, which had a population of 1,359,814 in 2011, the total literate population was 1,006,164, resulting in a literacy rate of 73.99%. Correspondingly, 352,622 individuals were recorded as illiterate, with an illiteracy rate of 25.93%.

These literacy and illiteracy rates across the towns and villages within the LPA underscore the variations in educational attainment and access to learning opportunities, reflecting diverse socio-economic and urbanization levels within the region. The following table illustrates literacy rate in Tiruppur LPA in comparison with district and state.

Table 16 Comparison of Literacy Rates

	URBAN	RURAL	TOTAL
Tamilnadu	87.04%	73.54%	80.09%
Tiruppur District	82.68%	74.38%	78.68%
Tiruppur Corporation	76.66%	-	78.17%
Total Tiruppur LPA	**77.36%**	**67.74%**	**73.99%**

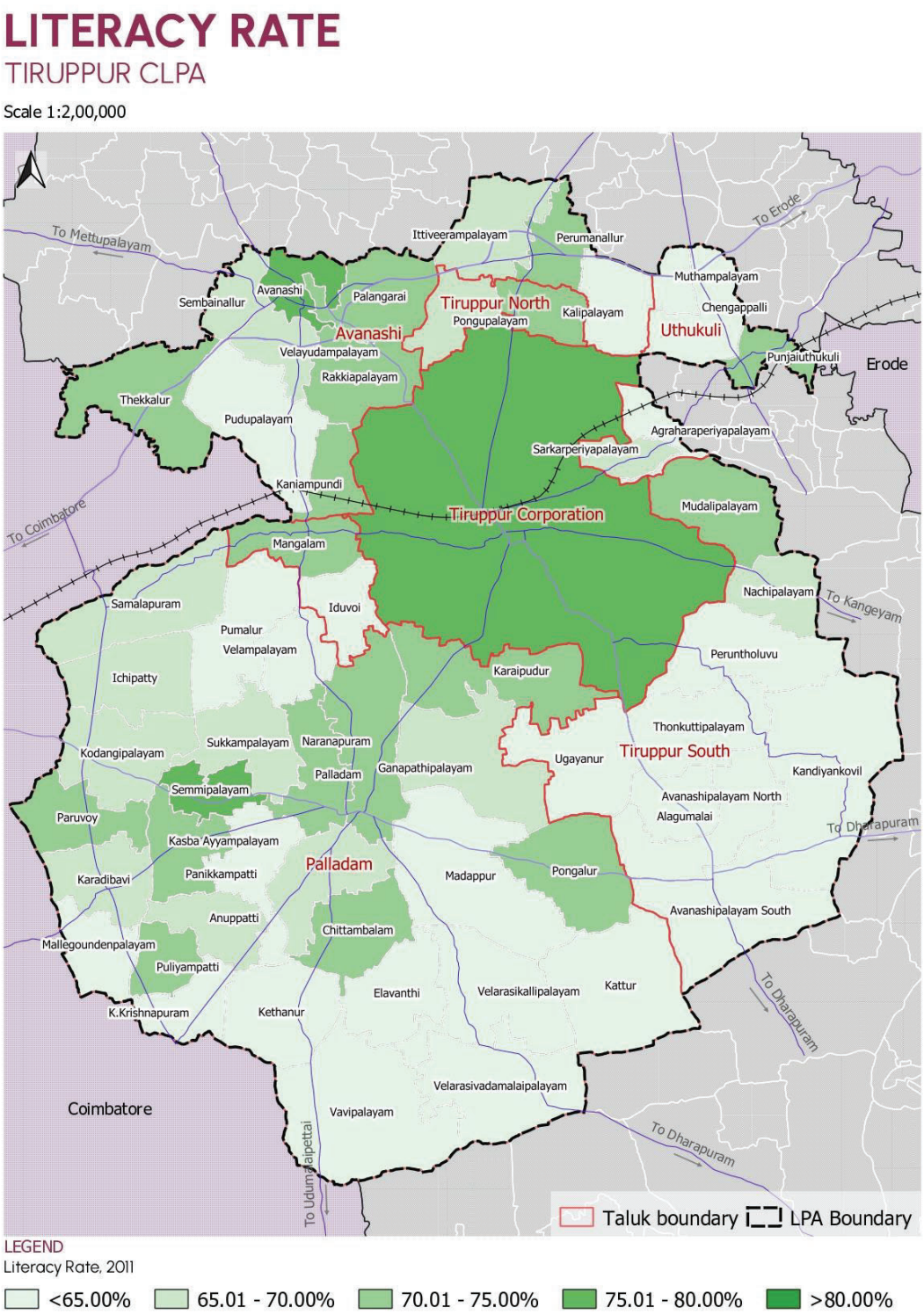
SOURCE – CENSUS OF INDIA

Tiruppur Corporation, as the primary urban center within the district, records a literacy rate of 76.66%. While this rate is slightly lower than that of the district as a whole, it remains relatively high. The Corporation's role as an economic and industrial hub may contribute to the accessibility of educational resources and opportunities.

When considering the entire Tiruppur LPA, which comprises both urban and rural areas, the literacy rate is 73.99%. This figure showcases a relatively balanced literacy rate, with 77.36% in urban areas and 67.74% in rural areas. While the LPA's literacy rate is slightly lower than that of the district and the

state, it is important to recognize that the LPA encompasses a mix of urban and rural settings, contributing to the variation in literacy rates.

In summary, the literacy rates in Tiruppur LPA, Tiruppur District, and Tamil Nadu as a whole reflect the region's commitment to education. While the state boasts the highest literacy rate, Tiruppur District maintains a commendable balance between urban and rural literacy rates. Tiruppur LPA, encompassing diverse communities, demonstrates variations in literacy rates, with urban areas typically exhibiting higher rates than rural areas, a pattern often observed in regions with mixed urban and rural populations.



Map 24 Literacy Rate, Tiruppur LPA

3.7 KEY OBSERVATIONS

Key observations in the demography of Tiruppur Local Planning Authority (LPA) include:

Urbanization Trends: Tiruppur LPA exhibits a mix of urban and rural areas, with the Corporation being the principal urban center. The urban population percentage is notably lower in the LPA compared to the Corporation, indicating the presence of both urban and rural communities.

Population Density Variation: Population density varies across the LPA, with the Corporation having the highest density, reflecting the concentration of people and economic activities in urban areas. Rural areas, such as villages, have lower population densities, indicating a more dispersed settlement pattern.

Sex Ratio Disparities: Sex ratios differ across urban and rural areas within the LPA. Urban areas tend to have lower sex ratios, while rural areas, especially Town Panchayats, exhibit higher sex ratios, indicating potential variations in gender demographics and urbanization levels.

Literacy Rate: Literacy rates vary across regions, with urban areas typically having higher literacy rates compared to rural areas. The Corporation maintains a relatively high literacy rate, reflecting access to educational resources in urban centers.

Literacy and Illiteracy Rates: The literacy rates across different regions highlight variations in educational attainment and access to learning opportunities, with rural areas showing relatively lower literacy rates compared to urban areas.

Population Growth: The population growth rates vary across urban and rural areas, with urban areas generally experiencing higher growth rates, reflecting the region's urbanization trends.

Scheduled Castes and Scheduled Tribes: The data provides information on the population of Scheduled Castes and Scheduled Tribes, indicating their presence and distribution within the LPA.

These key observations in the demography of Tiruppur LPA underscore the diverse socio-economic and demographic dynamics within the region, reflecting

the interplay between urban and rural development. The data highlights the need for targeted policies and development initiatives to address the specific needs and challenges of different areas within the LPA.

04

ECONOMY

4 ECONOMY

4.1 ECONOMIC DEVELOPMENT

Economy is one of the significant features for formal delineation of sub region. Economy includes main & marginal workers, primary secondary and tertiary workers. Tiruppur is an important Textile centre and the major Textile Industries like Knitting, Dyeing, Printing, Hosieries industries are mixed with residential areas within the Planning Area and now being developed along the major roads. The study analysis shows that the concentration of non-primary activities (secondary & tertiary) in and around Tiruppur and other emerging urban areas is more. Tiruppur LPA's economy is predominately a manufacturing-based economy. The sector is dominated by the textile industry which includes manufacturing and exporting of hosiery and cotton products. Tiruppur is contributing about 45% of total knitwear exports from our country and is exporting only cotton-based garments.

4.2 OCCUPATIONAL PATTERN

The Work Participation Rate (WPR), which is defined as the percentage of total workers to the total population.

Table 17 Work Participation Ratio, Tiruppur LPA (2011)

TOWNS/ VILLAGES	TOTAL WORKERS	WPR	MAIN		MARGINAL	
			Workers	%	Workers	%
Tiruppur Corporation	396135	46.46%	374440	94.52	21695	5.48
Municipalities	32465	44.02%	30560	94.13	1905	5.87
Town Panchayats	28804	48.26%	27112	94.13	1692	5.87
Villages in LPA	192605	51.55%	177940	92.39	14665	7.61
Total LPA	**650009**	**47.80%**	**610052**	**93.85**	**39957**	**6.15**

SOURCE – CENSUS OF INDIA

In Tiruppur Corporation, a total of 396,135 individuals were part of the workforce, representing 46.46% of the population. Among these, 374,440 individuals were categorized as Main workers, constituting a substantial 94.52% of the workforce, while 21,695 individuals were categorized as Marginal workers, making up 5.48% of the workforce.

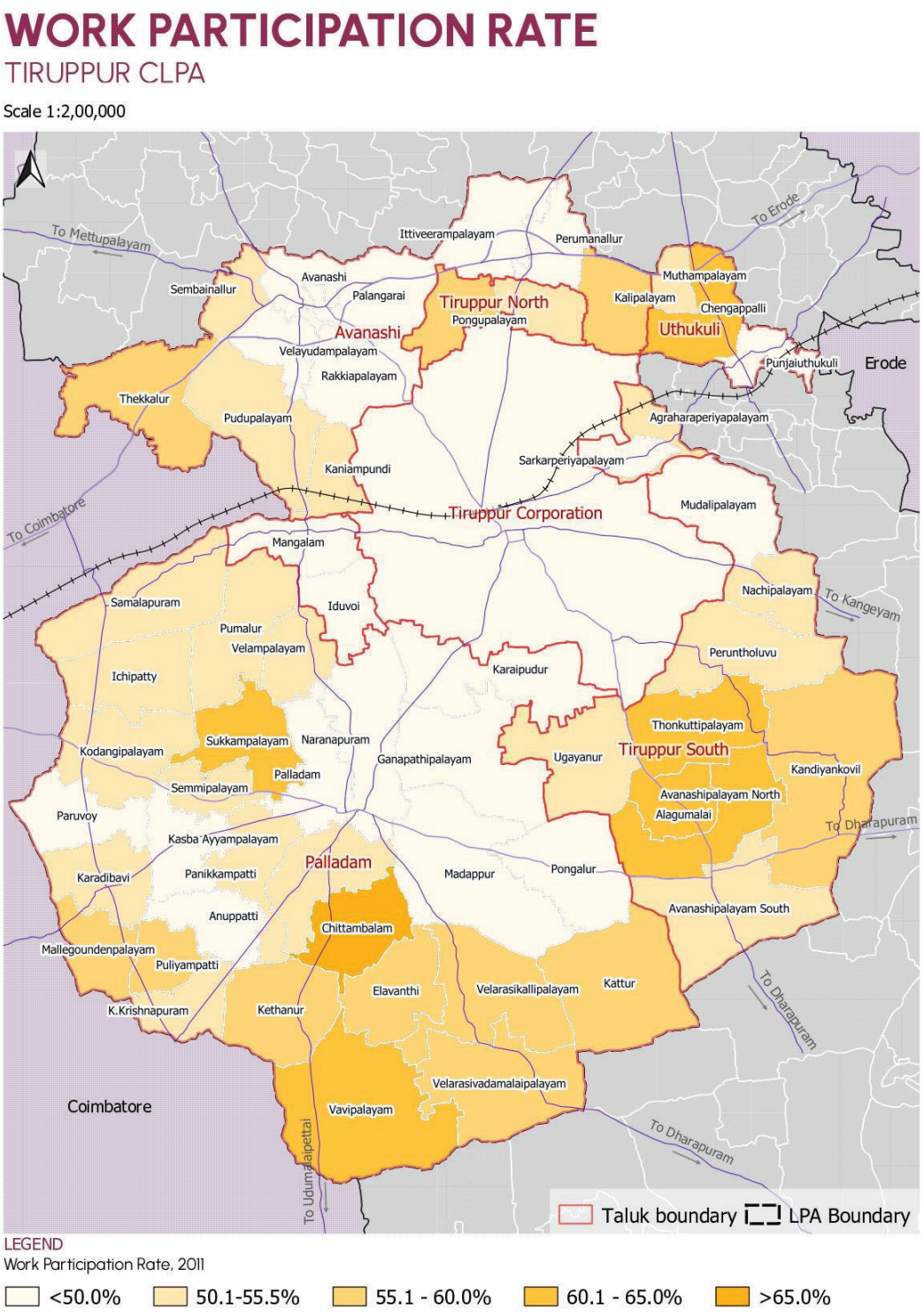
Within the municipalities, there were 32,465 individuals in the workforce, accounting for 44.02% of the population. Among these, 30,560 individuals were Main workers, comprising an impressive 94.13% of the workforce, while 1,905 individuals were Marginal workers, constituting 5.87% of the workforce.

The Town Panchayats had 28,804 individuals in the workforce, representing 48.26% of the population. Out of this workforce, 27,112 individuals were categorized as Main workers, making up 94.13% of the total workforce, while 1,692 individuals were identified as Marginal workers, accounting for 5.87% of the workforce.

In the villages within the LPA, a total of 192,605 individuals were part of the workforce, reflecting a workforce participation rate of 51.55%. Among these, 177,940 individuals were classified as Main workers, constituting 92.39% of the workforce, while 14,665 individuals were categorized as Marginal workers, making up 7.61% of the workforce.

Considering the entire Tiruppur LPA, which had a total workforce of 650,009 individuals, the workforce participation rate stood at 47.80%. Among these, 610,052 individuals were recognized as Main workers, accounting for a significant 93.85% of the workforce, while 39,957 individuals were categorized as Marginal workers, making up 6.15% of the workforce.

These workforce statistics across the towns and villages within the LPA offer a comprehensive view of the employment patterns, with a majority of individuals falling under the category of Main workers. These figures underscore the region's economic activities and the extent of workforce engagement across various sectors within Tiruppur LPA.



Map 25 Work Participation Rate, Tiruppur LPA

Table 18 Occupational Pattern, Tiruppur LPA (2011)

TOWNS/ VILLAGES	MAIN	CULTIVATORS	AGRI LABOURS	HH INDUSTRIES	OTHER WORKERS
Tiruppur Corporation	374440	1636	3130	7680	361994
Municipalities	30560	237	997	535	28791
Town Panchayats	27112	826	740	695	24851
Villages in LPA	177940	18927	30462	7696	120855
Total LPA	**610052**	**21626**	**35329**	**16606**	**536491**

SOURCE – CENSUS OF INDIA

Since, Tiruppur is industrial rich area having large employment opportunity which reflects in the type of workers in the Local Planning Area. 87.94% of the workers are in other workers category, while cultivators and Agricultural Labours are less compared to the agricultural land in the Local Planning Area. Percentage of Household industrial workers is merely 2.72%.

Table 19 Occupational Pattern (in %), Tiruppur LPA (2011)

TOWNS/VILLAGES	CULTIVATORS	AGRI LABOURS	HH INDUSTRIES	OTHER WORKERS
Tiruppur Corporation	0.44%	0.84%	2.05%	96.68%
Municipalities	0.78%	3.26%	1.75%	94.21%
Town Panchayats	3.05%	2.73%	2.56%	91.66%
Villages in LPA	10.64%	17.12%	4.33%	67.92%
Total LPA	**3.54%**	**5.79%**	**2.72%**	**87.94%**

SOURCE – CENSUS OF INDIA

Examining the distribution of Main workers across various sectors, including Cultivators, Agricultural Laborers, Household Industries, and Other workers, provides valuable insights into the workforce composition within Tiruppur Local Planning Authority (LPA). These statistics shed light on the region's economic activities and the nature of employment in both urban and rural areas.

In Tiruppur Corporation, which serves as the primary urban center, there were 374,440 Main workers. Among these, 1,636 individuals were engaged in cultivation, constituting 0.44% of the Main workforce. Additionally, 3,130 individuals were involved in agricultural labor (0.84%), 7,680 individuals worked in household industries (2.05%), and the majority, 361,994 individuals, were categorized as Other workers (96.68%).

Within the municipalities, there were 30,560 Main workers. Among these, 237 individuals were cultivators (0.78% of the Main workforce), 997 individuals were agricultural laborers (3.26%), 535 individuals worked in household industries (1.75%), and the majority, 28,791 individuals, were classified as Other workers (94.21%).

The Town Panchayats had 27,112 Main workers. Among these, 826 individuals were cultivators (3.05% of the Main workforce), 740 individuals were agricultural laborers (2.73%), 695 individuals worked in household industries (2.56%), and the majority, 24,851 individuals, were categorized as Other workers (91.66%).

In the villages within the LPA, there were 177,940 Main workers. Among these, 18,927 individuals were engaged in cultivation (10.64% of the Main workforce), 30,462 individuals were agricultural laborers (17.12%), 7,696 individuals worked in household industries (4.33%), and the majority, 120,855 individuals, were classified as Other workers (67.92%).

Considering the entire Tiruppur LPA, which had a total of 610,052 Main workers, the distribution was as follows: 21,626 individuals were cultivators (3.54% of the Main workforce), 35,329 individuals were agricultural laborers (5.79%), 16,606 individuals worked in household industries (2.72%), and the majority, 536,491 individuals, were categorized as Other workers (87.94%).

These workforce composition statistics highlight the diversity of employment patterns within Tiruppur LPA, with varying levels of engagement in agriculture, household industries, and other sectors. The data underscores the dynamic nature of employment and the region's transition toward non-agricultural sectors, particularly in urban areas.

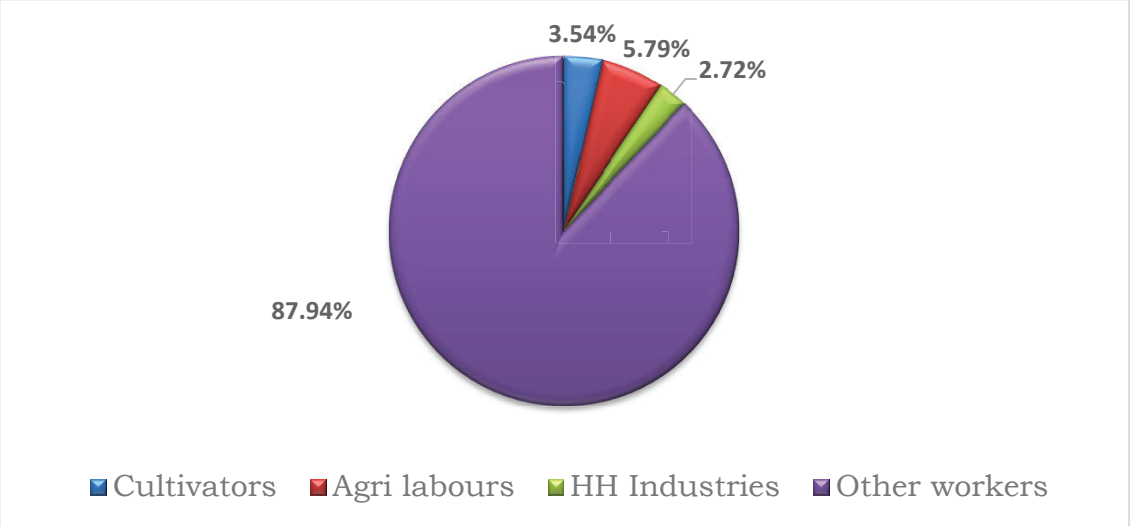


Figure 14 Economy of Tiruppur LPA

SOURCE – CENSUS OF INDIA

4.3 MIGRANT WORKERS

Tiruppur, a dynamic industrial hub in Tamil Nadu, has witnessed significant migration, especially among the workforce employed in various sectors. The Interstate Migrant Workers Data Portal serves as a comprehensive platform to monitor and manage the migrant worker population. Here is an overview of the registered migrant workers in different categories within the Tiruppur LPA:

TIRUPPUR DISTRICT - INTERSTATE MIGRANT WORKERS DATA IN PORTAL					
S.NO.	**CATEGORY**	**TOTAL NO. OF EMPLOYER REGISTERED**	**TOTAL NO. OF REGISTERED WORKERS (LINKED WITH EMPLOYER)**	**TOTAL NO. OF REGISTERED WORKERS (NOT LINKED WITH EMPLOYER)**	**TOTAL NO. OF REGISTERED WORKERS**
		A	B	C	B+C=D
1	Dish - Factory	1384	85258	0	85258
2	Dish - BOCW	3	815	0	815
3	Dish - Other	128	428	0	428
5	Labour - Catering Establishments	58	111	0	111
6	Labour - Shops & Establishments	0	0	0	0
7	Labour - Plantations Labour	0	1	0	1
8	Labour - Industrial Establishments	11	67	0	67
9	Others & Not Linked With Employer	0	708	48789	49497
	Total	1584	87388	48789	136177

In addition to the detailed breakdown of migrant workers in various categories within Tiruppur LPA, it is essential to recognize the diverse geographic origins of

these workers. Here's a comprehensive overview, including the number of Inter-State Migrant (ISM) workers from different states:

S No.	STATE	NUMBER OF ISM Workers	S No.	STATE	NUMBER OF ISM Workers
1	Odisha	38,518	18	Delhi	90
2	Bihar	14,500	19	Punjab	101
3	Jharkhand	13,578	20	Rajasthan	80
4	West Bengal	4,969	21	Himachal Pradesh	84
5	Assam	5,219	22	Nagaland	49
6	Uttar Pradesh	3,363	23	Gujarat	42
7	Chhattisgarh	3,720	24	Manipur	20
8	Madhya Pradesh	756	25	Haryana	32
9	Andhra Pradesh	399	26	Mizoram	19
10	Karnataka	271	27	Telangana	35
11	Arunachal Pradesh	249	28	Puducherry	15
12	Kerala	439	29	Jammu and Kashmir	14
13	Tripura	185	30	Daman and Diu	2
14	Maharashtra	214	31	Andaman and Nicobar	4
15	Meghalaya	124	32	Goa	2
16	Chandigarh	192	33	Sikkim	1
17	Uttarakhand	100	34	Dadra and Nagar	2
			TOTAL		**87,388**

Understanding the origin of the migrant workforce contributes significantly to addressing their specific needs and ensuring their well-being in Tiruppur LPA. This data underscores the importance of cross-state coordination and collaboration in implementing policies that support and safeguard the rights and livelihoods of these workers.

4.4 ECONOMIC SCENARIO

4.4.1 Economy of LPA

Until the first quarter of the 20th century, the economy of Tiruppur was predominantly agrarian in nature. Almost all the workers were involved in the primary sector activities. This trend changed during the second quarter of the century. From 1930 onwards, there was a shift towards the secondary and tertiary sectors. In 1961, a little more than half of the work force in Tiruppur city was engaged in the secondary sector activities. It increased to two-thirds (65 percent) of the work force in 1991. As against this, the proportion of the work force in the primary sector had declined from 4.11 percent in 1961 to 0.68 percent in 1991. In the service sector, the proportion of the work force has declined form 45.34 percent to 34.75 percent for the same period. In short, within six decades, Tiruppur's economy has changed completely from the primary to the secondary and tertiary sector activities. Not only the Tiruppur city but also the agglomeration area had transformed remarkably. It indicates that even the economy of the agglomeration area had transformed with non-agricultural activities dominating it. Unlike the Coimbatore city and agglomeration areas, about two-thirds of the work force in Tiruppur engaged in the industrial sector due to the large number of dyeing and bleaching industries and only one–third worked in the service sector.

Tiruppur is contributing about 45% of total knitwear exports from our country and is exporting only cotton-based garments. There is a good scope for increasing our market share in the global from the current level of about 2.6% by exporting value added products and synthetic products. The following table compares the with knitwear exports of Tiruppur with all India exports.

Textile and Clothing Manufacturing hubs in Asia and Europe Tiruppur is also known as the knitwear capital of India, accounting for 90% of India's cotton

knitwear export. It has spurred up the textile industry in India for the past three decades. It contributes to a huge amount of foreign exchange in India. In the Fiscal year 2013, exports were 17,500. The city provides employment to around 400,000 workers, with the average salary per worker being around 9,000 per month. Special Industrial Parks have been developed to support the textile industry. Nethaji Apparel Park (NAP), Tirupur Export Knitwear Industrial Complex, SIDCO Industrial Estate and J.S.Apparel Park are a few that are operational. Nethaji Apparel Park has 53 companies manufacturing knitwear for exports. The NAP presently provides employment to 15,000 people and generates The NAP presently provides employment to 15,000 people and generates export revenue of Rs. 15 billion from the apparels produced in it. Tirupur Export export revenue of Rs. 15 billion from the apparels produced in it. Tirupur Export Knitwear Industrial Complex was established in 1992 and has 189 sheds built over a 4200 square feet area. Some of the world's largest retailers including C&A, Nike, Walmart, Primark, Adidas, Switcher, Polo Ralph Lauren, Diesel, Tommy Hilfiger, M&S, FILA, H&M, Reebok import textiles and clothing from Tiruppur.

The Tiruppur Districts contribution to the National kitty for Public Expenditure is most significant. The tax revenue of Tiruppur district may be largely ascribed to knitwear sector stakeholders. The direct tax contribution is about Rs. 852.96 crore (2014-15) while. Considering these estimates, four-fold growth in turnover as envisaged in Tiruppur's Vision 2020 could lead to Tiruppur contributing to close to Rs. 3411.84 crore (in current prices) as direct tax contribution and Rs. 1982.96 crore (in current prices) as indirect tax contribution by the year 2020.

Tiruppur is 3rd most MSME registered District in Tamil Nadu following Chennai and Coimbatore. According to the MSME Annual report 2019-2020, Tiruppur has 89514 number of registered MSME units which has an investment of 1,40,012 Lakh Rupees of Investment which provides employment to 885329.

The garment industry of Tiruppur has a turnover of more than Rs.15,000 Crore and provides employment to almost 4,00,000 people. Its proximity to NH544, has prompted buyers from all over the country and abroad to indulge in

direct trading with the small-scale units of Tiruppur. People know Tiruppur for its amazing textile industry. However, very few people are aware of the city's breath-taking innovations from young minds. Being an industrial town with lots of scope for growth and development, Tiruppur has contributed immensely to the welfare of the nation.

Table 20 Knitwear Exports Contribution of Tiruppur

	2015- 16	2016-17	2017- 18	2018-19	2019-20	2020-21
All India	50,150	55,150	51,526	54,691	53,199	46,890
Tiruppur	22,060	23,620	24,060	27,650	27,280	24,750
Share (%)	44.0	42.9	46.7	50.6	51.3	52.8

Source - DHDR 2017 Tiruppur District

Table 21 Gross and Net State Domestic product and Contribution of LPA to District and State Economic

SL.NO.	YEAR	STATE GDP (RS. IN LAKHS)				DISTRICT GDP (RS. IN LAKHS)			
		PRIMARY	SECONDARY	TERTIARY	TOTAL	PRIMARY	SECONDARY	TERTIARY	TOTAL
1	2008	3150807	9151736	18213138	30515681	87810	500893	695011	1283714
2	2009	3079411	8962975	20136950	32179336	88782	515802	749598	1354182
3	2010	3279727	10857429	21525966	35663122	94335	671902	812781	1579018
4	2011	3516987	12542302	24282284	40341573	129855	775653	921984	1827492
5	2012	3872767	13039248	26411788	43323803	175033	762068	1008230	1945331

Source - DHDR 2017 Tiruppur District

Table 22 District Share to The State GDP

DISTRICT SHARE TO THE STATE GDP			
PRIMARY	SECONDARY	TERTIARY	TOTAL
2.79%	5.47%	3.82%	4.21%
2.88%	5.75%	3.72%	4.21%
2.88%	**6.19%**	3.78%	4.43%
3.69%	6.18%	3.80%	**4.53%**
4.52%	5.84%	3.82%	4.49%

4.4.2 Primary sector

I. Agriculture

The agricultural sector in Tiruppur plays an important role in the local economy and sustenance of the population. Major Cultivation on the outskirts of the LPA is due to PAP Canal from Aliyar Dam. Cultivators and Agricultutral Labours account for 9.34% (60,685) of the total workers in the LPA

Here's an overview of the agricultural sector in Tirupur:

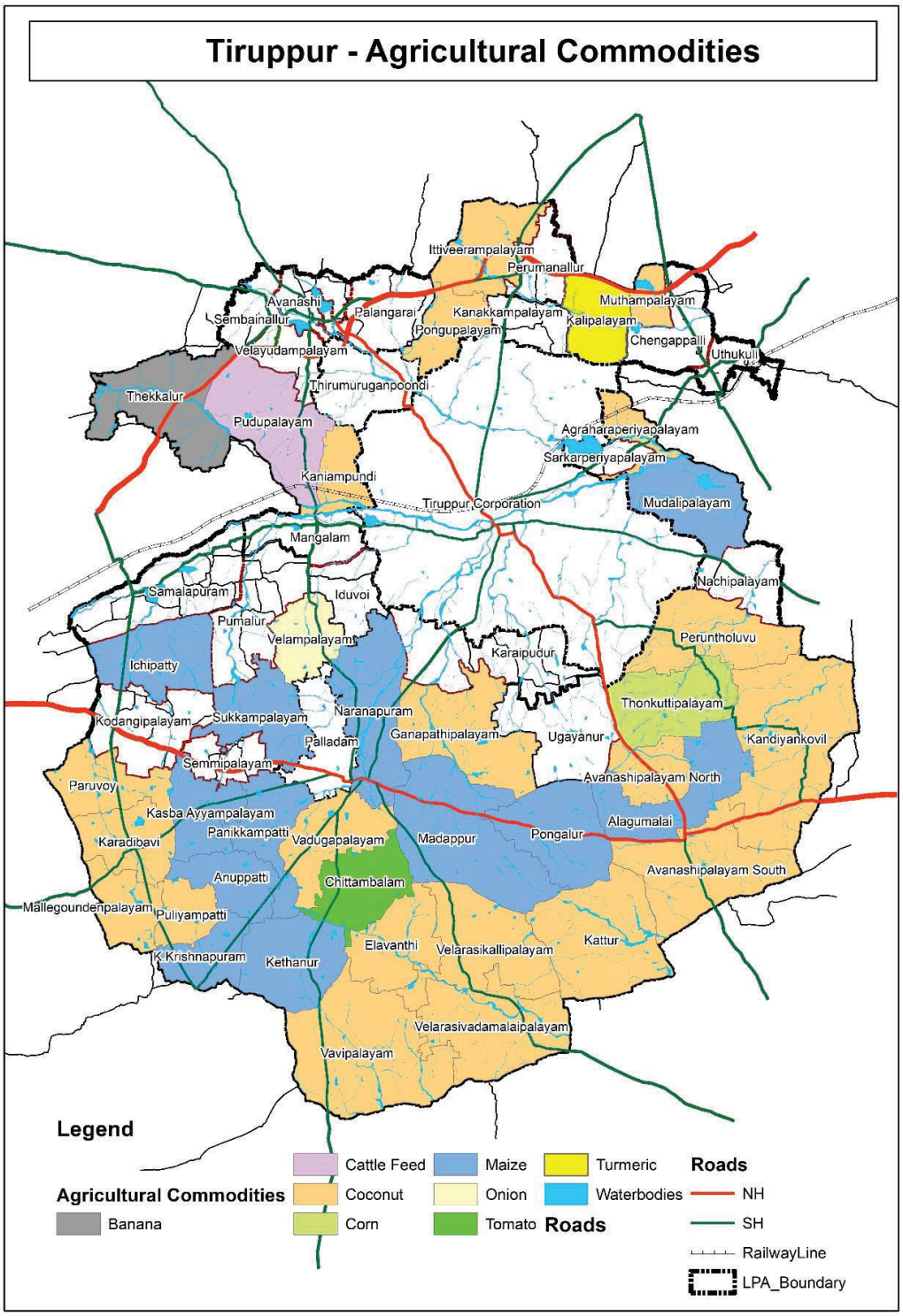
Crop Cultivation:

Cotton: Tiruppur is known for its cotton cultivation. The region's favorable climate and soil conditions make it suitable for cotton farming, supporting the local textile industry.

Paddy: Rice cultivation is also significant, particularly in the surrounding rural areas. Both irrigated and rain-fed paddy fields contribute to the local food supply.

Vegetables and Fruits: A variety of vegetables and fruits are cultivated in and around Tiruppur. These include tomatoes, brinjals, beans, bananas, and coconuts.

Coconut: Coconut cultivation is prominent, and coconuts are a major source of income for many farmers in the region. The coconut industry supports livelihoods through various products like coconut oil and copra.



Map 26 Agriculture Commodities, Tiruppur LPA

Challenges and Opportunities:

Water Management: Effective water management is crucial due to the presence of water-intensive crops and the need to balance agricultural and industrial water usage. Sustainability: Sustainable farming practices are essential to preserve soil fertility, conserve water, and minimize chemical inputs. Practices like organic farming and integrated pest management can contribute to this goal. Diversification: Exploring the cultivation of alternative crops can reduce dependence on a few crops and mitigate risks associated with changing market conditions. Technology Adoption: Implementing modern agricultural technologies, such as precision farming, drip irrigation, and crop monitoring through sensors, can improve yield and resource efficiency. Value Addition: Encouraging agro-processing and adding value to agricultural products can create additional revenue streams for farmers.

Government Initiatives:

Subsidies: The government provides subsidies on seeds, fertilizers, and machinery to support farmers and enhance agricultural productivity. Extension Services: Agricultural extension services offer guidance on best practices, new technologies, and disease management to farmers. Research and Training: Government and agricultural institutions conduct research and training programs to educate farmers about the latest farming techniques.

Efforts to promote sustainable practices, improve infrastructure, and provide access to markets can help bolster Tiruppur's agricultural sector while ensuring a balance with the region's industrial growth.

II. Horticulture

Horticulture, the cultivation of fruits, vegetables, flowers, and ornamental plants, has a significant presence in Tiruppur's agricultural landscape. Here's an overview of horticulture in Tiruppur:

Fruit Cultivation:

Bananas: Banana cultivation is one of the key horticultural activities in Tiruppur. The region produces a variety of banana types, contributing to both local consumption and commercial markets. Coconuts: Coconut trees are a

common sight in Tiruppur's rural areas. Coconut cultivation not only provides fruits but also raw materials for coconut oil and other products.

Vegetable Cultivation:

Tomatoes: Tomatoes are a commonly cultivated vegetable, supplying local markets and nearby regions. Brinjals (Eggplants), Beans, and Others: A variety of vegetables like brinjals, beans, and other greens are grown for local consumption and sale.

Flower and Ornamental Plant Cultivation:

Marigolds and Other Flowers: Flowers like marigolds are cultivated for religious and cultural purposes, as well as for the floral industry. Ornamental Plants: Nurseries in the region cultivate ornamental plants that are used for landscaping, gardening, and beautifying urban and rural areas.

Advantages of Horticulture:

Nutritional Diversity: Horticulture contributes to a diverse diet by providing a range of fresh fruits and vegetables to local communities. Income Generation: Horticulture offers income opportunities for farmers, especially during seasonal variations in other agricultural activities. Aesthetic Enhancement: Flower and ornamental plant cultivation contributes to the aesthetic appeal of urban and rural spaces.

Challenges:

Seasonal Variability: Horticulture can be sensitive to seasonal changes, and fluctuations in weather patterns can impact crop yields. Pest and Disease Management: Ensuring the health of horticultural crops requires vigilance in pest and disease control. Market Access: Farmers need reliable markets to sell their produce and obtain fair prices for their efforts.

Government Initiatives:

Training and Extension Services: The government provides training programs and extension services to educate farmers about improved horticultural practices. Research and Development: Horticultural research centers work on developing high-yield and disease-resistant crop varieties suitable for the region. Future Prospects: The adoption of modern techniques,

sustainable practices, and the use of technology can enhance the productivity and quality of horticultural products in Tiruppur.

Horticulture contributes not only to livelihoods and local nutrition but also adds vibrancy to both urban and rural environments. Efforts to support horticulture through training, market linkages, and technological interventions can further strengthen this sector in the region.

III. Sericulture

Sericulture, the cultivation of silkworms for the production of silk, has a significant presence in Tiruppur. Here's an overview of sericulture in Tiruppur:

Silk Production:

Mulberry Cultivation: Mulberry trees are grown to provide leaves for feeding silkworms. Mulberry leaves are the primary food source for silkworms and a crucial component of silk production. Silkworm Rearing: Silkworm eggs are hatched and the larvae are reared on mulberry leaves. The worms spin cocoons using their silk glands, and these cocoons are the source of raw silk.

Cocoon Harvesting

Matured silkworms spin cocoons around themselves. These cocoons are carefully harvested to obtain the silk threads. Silk Extraction: The harvested cocoons are boiled to soften the sericin (a protein substance that holds the cocoon threads together), making it easier to extract the silk threads. Value Chain: Raw Silk Production: The extracted silk threads are twisted together to form raw silk, which is the primary material used for making silk textiles. Weaving and Textile Production: The raw silk is then woven into various types of silk textiles, including sarees, dress materials, and other silk products.

Advantages of Sericulture:

Income Generation: Sericulture provides a source of income for rural households engaged in mulberry cultivation and silkworm rearing. Rural Employment: Sericulture generates employment opportunities for various stages of production, including mulberry cultivation, cocoon harvesting, and silk weaving. Sustainable Agriculture: Mulberry cultivation can be integrated with other agricultural activities, contributing to sustainable land use.

Government Initiatives: Subsidies and Incentives: The government offers subsidies and incentives to encourage sericulture activities, including support for mulberry cultivation and silkworm rearing. Training and Research: Government agencies provide training and research facilities to improve the skills of sericulturists and enhance silk quality. Future Prospects: Efforts to modernize sericulture practices, improve silk quality, and promote silk products domestically and internationally could contribute to the growth and sustainability of the sericulture industry in Tiruppur.

Overall, sericulture plays a role in Tiruppur's agricultural landscape, contributing to income generation and rural employment while adding to the diversity of the region's economic activities.

IV. Animal Husbandry

Animal husbandry, which involves the care and management of livestock, has its own significance in Tiruppur's economy and rural livelihoods. Here's an overview of animal husbandry in Tiruppur:

Livestock Farming:

Dairy Farming: Dairy farming is a prominent component of animal husbandry in Tiruppur. Cows and buffaloes are reared for milk production, which supports the local dairy industry.

Poultry Farming: Poultry farming, including the rearing of chickens for meat and eggs, is also practiced in the region. It contributes to the local protein supply and livelihoods.

Goat and Sheep Farming: Rearing goats and sheep for meat and wool production is another aspect of animal husbandry, providing an additional source of income for rural households.

Advantages of Animal Husbandry:

Income Generation: Animal husbandry serves as a source of supplementary income for rural families, especially small and marginal farmers. Nutritional Security: Dairy and poultry farming contribute to the availability of protein-rich foods like milk, meat, and eggs in the local diet. Livelihood Diversification: Animal husbandry allows farmers to diversify their income sources and mitigate risks associated with crop-based agriculture.

Government Initiatives:

Animal Health Services: The government provides veterinary services to diagnose and treat livestock diseases, ensuring the health of the animals.

Training and Skill Development: Training programs are conducted to educate livestock farmers about best practices in animal care, disease management, and feeding.

Future Prospects: As with other agricultural activities, the adoption of modern practices, including improved animal breeds, nutrition management, and disease control, can enhance the productivity and sustainability of animal husbandry in Tiruppur.

Overall, animal husbandry contributes to both rural livelihoods and the availability of animal-based products for consumption. Sustainable practices and efforts to link livestock farmers with markets can further strengthen this sector in the region.

4.4.3 Secondary sector

Industrial Clusters in Tiruppur, Tamil Nadu

Tiruppur, located in the southern state of Tamil Nadu, India, is renowned for its vibrant textile and garment industry. The region is home to several industrial clusters that play a pivotal role in the economic landscape. These clusters represent specialized hubs where businesses, often sharing common interests or activities, collaborate and thrive. Here are some notable industrial clusters in Tiruppur:

M/s.SIIMKA Knitex Cluster Services Private Limited (Knitting Cluster):

This cluster specializes in the knitting sector, a crucial component in the textile and garment manufacturing process. It is likely home to a range of knitting units contributing to the production of high-quality knitted fabrics.

M/s.TTPK Apparel Cluster Private Limited (Apparel Cluster):

The TTPK Apparel Cluster is dedicated to the apparel industry. It encompasses a network of apparel manufacturers, designers, and related businesses, contributing to the production and distribution of a wide range of garments.

M/s.Tiruppur Fashions Cluster Private Limited (Design Cluster 1 and Design Cluster 2):

Tiruppur Fashions Cluster Private Limited has two distinct design clusters, emphasizing the importance of design in the textile and apparel industry. These clusters likely house design studios and professionals working on innovative and trend-setting designs.

M/s.Palladam Powerloom Weaving Cluster Private Limited (Powerloom Cluster):

The Powerloom Cluster in Palladam is integral to the textile weaving process. It comprises powerloom units engaged in the weaving of fabrics, contributing significantly to the textile value chain.

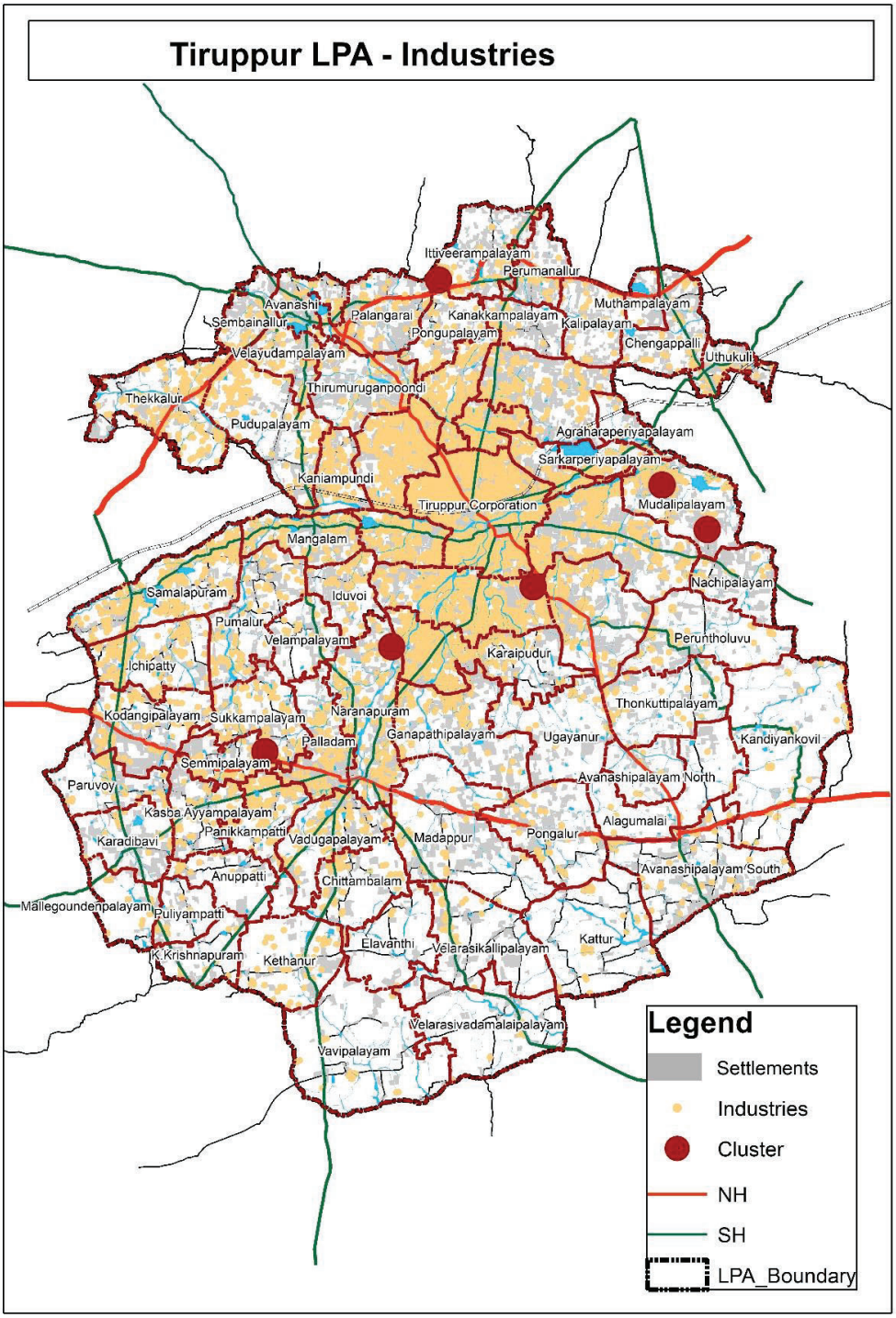
Nethaji Apparel Park:

Nethaji Apparel Park is a comprehensive industrial park catering to various aspects of the textile and garment industry. It may include facilities for manufacturing, processing, and finishing of textiles and garments, fostering a collaborative and integrated business environment.

These industrial clusters in Tiruppur showcase the region's specialization and expertise in different stages of the textile and apparel production. The collaborative nature of these clusters promotes innovation, efficiency, and sustainability, making Tiruppur a hub for textile and garment manufacturing on both national and international scales. The presence of diverse clusters also highlights the comprehensive ecosystem that supports the entire value chain of the textile and apparel industry in Tiruppur.

Table 23 Industrial Clusters, Tiruppur LPA

SL.NO.	NAME OF THE CLUSTER
1	M/s.SIIMKA Knitex Cluster Services Private Limited(Knitting Cluster)
2	M/s.TTPK Apparel Cluster Private Limited(Apparel Cluster)
3	M/s.Tiruppur Fashions Cluster Private Limited (Design Cluster 1)
4	M/s.Tiruppur Fashions Cluster Private Limited (Design Cluster 2)
5	M/s.Palladam Powerloom Weaving Cluster Private Limited(Powerloom Cluster)
6	Nethaji Apparel Park



Map 27 Industrial Clusters, Tiruppur LPA

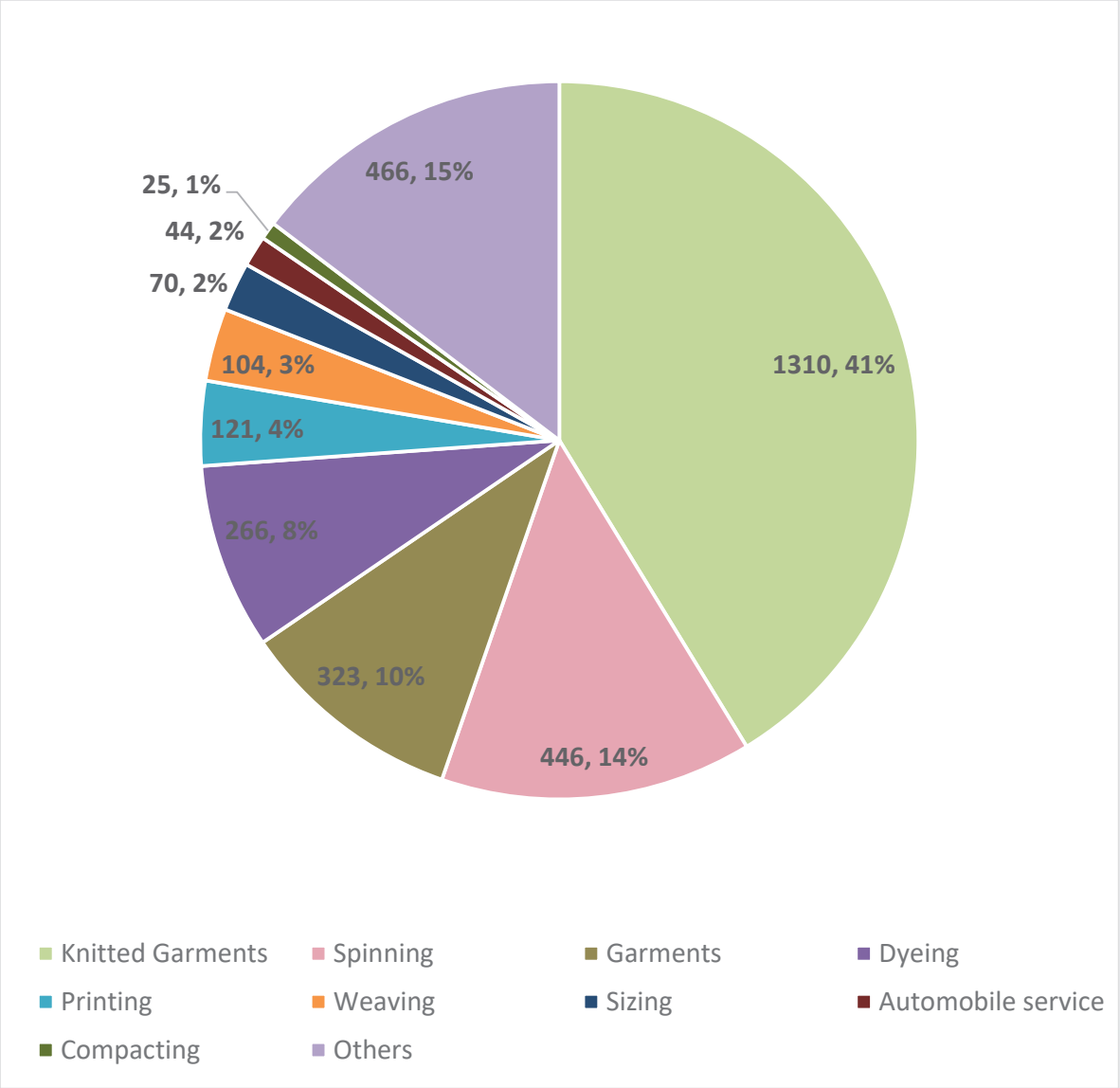


Figure 15 Types of Industries, Tiruppur LPA

Textile and Garment Industry:

Tiruppur has gained a reputation as one of India's leading textile and garment manufacturing hubs. The city's specialization in knitwear production has earned it the nickname "Knitwear Capital of India." The industry contributes significantly to the local economy and employment generation. Textile related

Industries is around 92.5% of the total industries in the LPA area Dyeing Industries account for 10.62% of the total Industries

Table 24 Types of Industries, Tiruppur LPA

S.NO.	INDUSTRY TYPE	NUMBERS	PERCENTAGE
1	Knitted Garments	1310	51.54%
2	Garments	446	12.10%
3	Dyeing	323	10.62%
4	Spinning	266	4.93%
5	Printing	121	4.73%
6	Weaving	104	3.77%
7	Sizing	70	2.65%
8	Automobile service	44	0.92%
9	Compacting	25	0.92%
10	Others	466	7.82%
	Total	**3175**	

The development of this sector involves:

Manufacturing Facilities: Numerous textile mills, garment factories, and dyeing units are established in Tiruppur. These facilities produce a wide range of products, including t-shirts, shirts, undergarments, and sportswear.

Export Orientation: A significant portion of the textile and garment products manufactured in Tiruppur is exported to various international markets. The city has established itself as a key player in global textile trade.

Supply Chain Integration: The industry in Tiruppur has developed a well-integrated supply chain involving spinning mills, knitting units, dyeing and printing facilities, and garment production units. This integration enhances efficiency and quality control.

Innovation and Technology: The sector has embraced technological advancements to improve production processes, reduce costs, and enhance product quality. Automation and digital tools are increasingly being utilized.

Sustainable Practices: In recent years, there's been a growing focus on sustainable practices in the textile and garment industry. Efforts are being made to adopt eco-friendly dyeing methods, use organic materials, and reduce water consumption.

Employment Generation: The industry provides employment to a significant portion of the local population, ranging from skilled labor to managerial positions.

Export Zones: The establishment of textile export zones has further facilitated the growth of the industry by providing specialized infrastructure and incentives to exporters.

Challenges: The industry faces challenges such as fluctuating global demand, competition from other countries, compliance with environmental regulations, and ensuring fair labour practices.

Diversification: While textiles remain the primary focus, there's potential for diversification into related sectors such as apparel design, fashion technology, and technical textiles.

Overall, the textile and garment industry continue to be a driving force in Tiruppur's economic development. To ensure sustainable growth, the sector could explore adopting advanced technologies, embracing sustainability practices, and diversifying its product range to cater to changing market demands.

In addition to the prominent sectors mentioned earlier (textile, agriculture, sericulture, animal husbandry, and horticulture), Tiruppur is home to various other industries that contribute to its economic diversity. Here are some other industries in Tiruppur:

Communication	3%
Transport by other means	3%
Public Administration	3%
Others	1%
Manufacturing Registered	32%
Trade,Hotels& Restaurants	16%
Real estate,Ownership of Dwelling and Business Services	10%
Other services	9%
Agriculture& Allied Activities	7%
Banking and Insurance	6%
Construction	6%
Manufacturing Unregistered	4%
	100%
Source-Department of Economics and Statistics, Tamil Nadu	

Figure 16 Service Sector, Tiruppur LPA

Information Technology (IT) and Software: Tiruppur has seen the emergence of IT and software development companies, offering services such as software development, IT consulting, and digital solutions. This sector contributes to the city's technological advancement and provides employment opportunities for skilled professionals.

Small-Scale Manufacturing: Apart from textiles, there are various small-scale manufacturing activities that produce items such as machinery parts, consumer goods, packaging materials, and more. These industries contribute to local employment and supply chains.

Retail and Trading: Tiruppur's central location and economic activity have given rise to a thriving retail and trading sector. Wholesale and retail markets cater to both local and regional consumers, offering a wide range of products.

Construction and Real Estate: The city's growth and development have led to increased construction activities, including residential, commercial, and infrastructure projects. The real estate sector also plays a role in providing housing and commercial spaces.

Handicrafts and Artisan Industries: Local artisans and craftsmen create handmade products, including handicrafts, traditional artworks, and handmade textiles.

Automotive and Auto Components: Some auto-related industries, including the production of auto components and accessories, have also found their place in Tiruppur's economic landscape.

Energy and Utilities: The production and distribution of energy resources, including electricity, water, and other utilities, are essential for the functioning of all industries and residential areas.

These industries collectively contribute to the economic diversity of Tiruppur, providing employment opportunities, services, and products that cater to the needs of its residents and visitors. The city's evolving economic landscape reflects its ability to adapt to changing demands and trends.

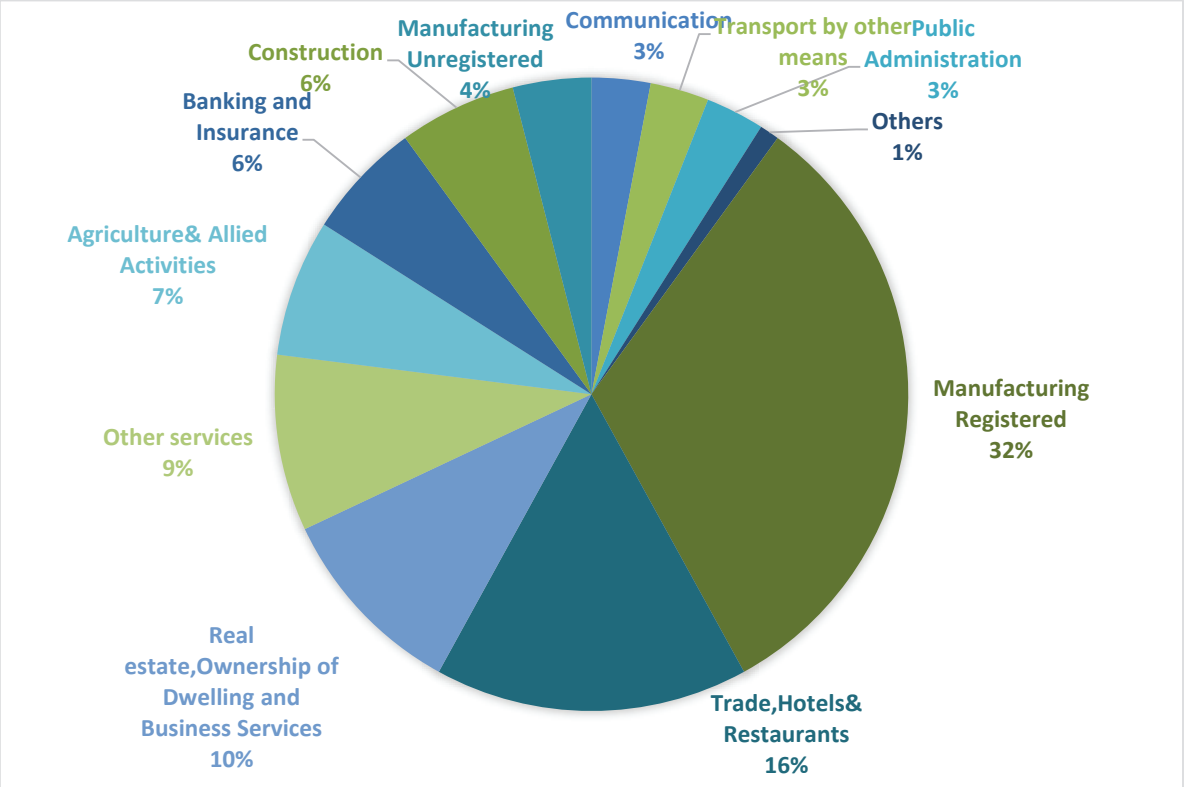


Figure 17 Sub-sector wise composition of Tiruppur GDDP(2010-11)

4.4.4 Tertiary sector

The service sector in Tiruppur plays a crucial role in supporting the city's overall economic development and enhancing the quality of life for its residents. Here's an overview of the service sector in Tiruppur:

Retail and Trade: Retail businesses, including supermarkets, shops, and markets, provide a wide range of products to residents and visitors. Wholesale markets cater to traders from neighboring regions, contributing to trade activities.

Hospitality and Tourism: Tiruppur's status as a business hub and its proximity to tourist destinations has led to the growth of hotels, restaurants, and tourism-related services to accommodate business travelers and tourists.

Healthcare Services: Hospitals, clinics, diagnostic centers, and medical practitioners offer healthcare services to the city's residents, contributing to the overall well-being of the population.

Education and Training: Schools, colleges, vocational training centers, and coaching institutes provide education and skill development opportunities for students and professionals.

Financial Services: Banks, financial institutions, insurance companies, and investment firms offer a range of financial services to individuals and businesses in Tiruppur.

Real Estate and Construction: The real estate sector, including property management, construction, and real estate agencies, supports the city's growing urbanization and development.

IT and Software Services: The IT sector is growing, with IT companies offering software development, IT consulting, and digital solutions to businesses in and beyond Tiruppur.

Transportation and Logistics: Transportation services, including logistics, shipping, and freight, are integral to the city's trading activities and industrial growth.

Professional Services: Consulting firms, legal services, accounting firms, and other professional service providers contribute to the business environment of the city.

Entertainment and Recreation: Entertainment venues, theaters, recreational centers, and event management services cater to the leisure and entertainment needs of the population.

Communication and Media: Media outlets, advertising agencies, and communication services play a role in disseminating information and promoting businesses.

E-commerce and Online Services: The rise of e-commerce platforms and online service providers has expanded access to various products and services for the residents of Tiruppur.

The service sector complements the industrial and agricultural activities in Tiruppur, enhancing the overall quality of life, providing essential services, and contributing to economic growth. As the city continues to develop, the service sector is likely to expand further to meet the evolving needs of its residents and businesses.

4.4.5 Key initiatives and projects of National and state importance

Amended Technology Upgradation Fund Scheme (ATUFS): This initiative by the Ministry of Textiles aims to modernize and upgrade textile manufacturing units, including those in Tiruppur. It provides financial support for technology adoption, enhancing competitiveness, and sustainable growth in the textile industry.

Cluster Development Programs: Both national and state governments have supported the development of textile clusters in Tiruppur. These programs aim to enhance the competitiveness of the textile sector by providing infrastructure, technology upgradation, and skill development.

Silk Development Schemes: Government initiatives under the Ministry of Textiles promote sericulture and silk production. These schemes support the development of mulberry cultivation, silkworm rearing, and silk weaving, benefiting regions like Tiruppur where sericulture is practiced.

Pradhan Mantri Kisan Sampada Yojana (PMKSY): This scheme focuses on the development of food processing industries to enhance value addition, reduce wastage, and support farmers. It aims to establish food processing units, which can benefit the agricultural sector in Tiruppur.

Skill Development Initiatives: Various skill development programs supported by both national and state governments aim to enhance the

employability of the local workforce. These initiatives equip individuals with the skills required by different industries, including textiles and IT.

Tamil Nadu Industrial Guidance and Export Promotion Bureau (TIGEPB): This state-level agency assists industries in Tiruppur by providing guidance, support, and facilitation for investments, export promotion, and overall industrial development.

Tiruppur Smart City Project: Under the Smart Cities Mission, the Tiruppur Smart City project focuses on transforming the city into a sustainable and livable urban center. It includes initiatives to improve infrastructure, transportation, and service delivery.

State Horticulture Mission: The Tamil Nadu Horticulture Development Agency (TANHODA) implements various schemes to promote horticulture activities, including fruit cultivation, vegetable farming, and ornamental plant production, benefiting the horticulture sector in Tiruppur.

Micro, Small and Medium Enterprises (MSME) Initiatives: Both national and state governments have introduced schemes to promote MSME growth. These initiatives provide financial assistance, skill development, and technology support to MSMEs in Tiruppur.

Tamil Nadu Agro Processing and Agri Business Policy 2021: This state policy aims to promote agro-processing and agribusiness activities. It supports the establishment of food processing units, enhancing value addition and market access for agricultural produce in Tiruppur.

These initiatives and projects are aimed at fostering economic growth, enhancing competitiveness, and improving livelihoods in Tiruppur. They reflect a mix of efforts to modernize traditional industries, promote diversification, and support skill development to create a robust and sustainable economy.

4.5 OBSERVATIONS

Textile Dominance: Tiruppur remains a significant textile and garment manufacturing hub, contributing substantially to the city's economy. The textile industry's specialization in knitwear production has earned it global recognition.

Diversified Economic Base: While textiles are a core industry, Tiruppur has diversified its economic activities over the years, with agriculture,

sericulture, animal husbandry, and emerging sectors like IT playing important roles.

Employment Generation: The textile and related industries provide substantial employment opportunities to both skilled and unskilled labor. The sector's growth has led to rural-to-urban migration, creating a demand for various services.

Export-Oriented Approach: Tiruppur's textile products have a significant export market, contributing to foreign exchange earnings. The city's textile units cater to global fashion brands and retailers.

Water Scarcity Challenge: Water scarcity remains a pressing challenge due to over-extraction and pollution of water bodies. This issue affects industries, agriculture, and overall sustainable development.

Skill Development Initiatives: Skill development programs are vital to the city's workforce, enhancing the skills of individuals to meet the demands of evolving industries, including textiles and IT.

Sustainability Focus: There's a growing emphasis on sustainable practices in various sectors, including textiles and agriculture. Efforts to reduce water consumption, adopt eco-friendly processes, and enhance waste management are noticeable.

Urbanization and Infrastructure: Tiruppur's urban growth has led to increased infrastructure development, with improved road networks, transportation, and public amenities catering to the needs of a growing population.

Tourism Potential: The city's cultural heritage and proximity to tourist destinations provide opportunities for tourism development. Expanding infrastructure and promoting cultural tourism could benefit the local economy.

Emerging IT Sector: The emergence of the IT and software sector reflects Tiruppur's transition toward modern industries. This sector contributes to technology adoption and job creation for skilled professionals.

Economic Inclusivity: Efforts to promote inclusive growth can be observed, with initiatives to provide housing, healthcare, and education to all sections of the population.

Infrastructure Gaps: Despite development efforts, certain areas still face infrastructure gaps, including water supply, sanitation, and transportation networks.

Climate Resilience: The city's economy is vulnerable to climate change impacts, particularly in agriculture. Adapting to changing weather patterns is crucial for maintaining economic stability.

These observations provide insights into the strengths, challenges, and trends within Tiruppur's economy. They reflect the city's journey from a textile-centric hub to a more diversified economic landscape, while highlighting the importance of sustainability and inclusive development.

05

HOUSING

5 HOUSING

Housing is a key input for economic, social, and civic development. Provision of appropriate residential areas concerning workplace, industrial area, and access to various facilities is also a key to a successful Town development strategy for any urban area. The main purpose of the housing sector is to assist all people especially the houseless, economically weaker sections of the society, and to expand the supply of developed land for housing possibly through land use planning.

Housing is one of the basic needs in the civilized human existence. The growth in population and increase in land value makes affordable housing dream for a huge section of the population. This also leads to formation of slums, poor living conditions and lack of infrastructure. To address the issue of providing affordable housing for all, Government of India announced Nation Urban Housing and Habitat Policy in 2007. Housing has been provided under the Government schemes such as Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Valmiki Ambedkar Awas Yojana (VAMBAY), 2 million housing programme, Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Interest Subsidy Scheme for Housing the Urban Poor (ISHUP).

5.1 EXISTING SITUATION ANALYSIS

In Tiruppur corporation, there are 117081 households as per 2011 Census. There are 75.56% good houses, 23.92% livable houses and 0.52% dilapdated houses as per 2011 census as shown below.

Table 25 Number of Households

AREA NAME	TOTAL/ RURAL/ URBAN	TOTAL			
		TOTAL	GOOD	LIVEABLE	DILAPIDATED
STATE - TAMIL NADU	Total	1,84,67,701	1,29,63,855	51,62,831	3,41,015
STATE - TAMIL NADU	Rural	95,50,079	61,50,815	31,63,510	2,35,754
STATE - TAMIL NADU	Urban	89,17,622	68,13,040	19,99,321	1,05,261
District - Tiruppur	Total	7,00,851	5,15,940	1,77,099	7,812
District - Tiruppur	Rural	2,83,159	2,00,226	78,217	4,716
District - Tiruppur	Urban	4,17,692	3,15,714	98,882	3,096
Tiruppur (M.Corp)	Urban	1,17,081	88,467	28,009	605

SOURCE – CENSUS OF INDIA

Table 26 Condition of Houses

TIRUPPUR (M.CORP)		
TYPE	NO. OF HOUSES	PERCENTAGE
Good	88,467	75.56%
Liveable	28,009	23.92%
Dilapidated	605	0.52%

SOURCE – CENSUS OF INDIA

Total Houseless Population in the Tiruppur Corporation is 996 and their houseless households is 117.

Table 27 Mean Household Size, Tiruppur Corporation

AREA NAME	TOTAL/			HOUSEHOLD SIZE							
	RURAL/	HOUSELESS HOUSEHOLDS									
	Urban	Number	Population	1	2	3	4	5	6	7+	Mean Household Size
Tiruppur	URBAN	117	996	5	6	11	4	9	6	76	8.5

SOURCE – CENSUS OF INDIA

5.2 AVERAGE HOUSEHOLD SIZE

A household is defined as 'a group of persons who commonly live together and would take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so '(Source: Census 2011)

Definition: A 'household' is usually a group of persons who normally live together and take theirmeals from a common kitchen unless the exigencies of work prevent any of them from doing so.Persons in a household may be related or unrelated or a mix of both. However, if a group of unrelatedpersons live in a census house but do not take their meals from the common kitchen, then they arenot constituent of a common household. Each such person should be treated as a separatehousehold. The important link in finding out whether it is a household or not, is a common kitchen.There may be one member households, two member households or multi-member households.

The following table illustrates the average household size of Tiruppur LPA.

Table 28 Average Household size, Tiruppur LPA

TOWNS/VILLAGES	HOUSEHOLDS	HH SIZE	2001 HH	2001 HH SIZE
Tiruppur Corporation	238172	3.58	137434	3.9
Municipalities	20843	3.54	12666	3.8
Town Panchayats	16381	3.64	12077	3.8

TOWNS/VILLAGES	HOUSEHOLDS	HH SIZE	2001 HH	2001 HH SIZE
Villages in LPA	105303	3.55	68382	3.7
Total LPA	380699	3.57	230559	3.8

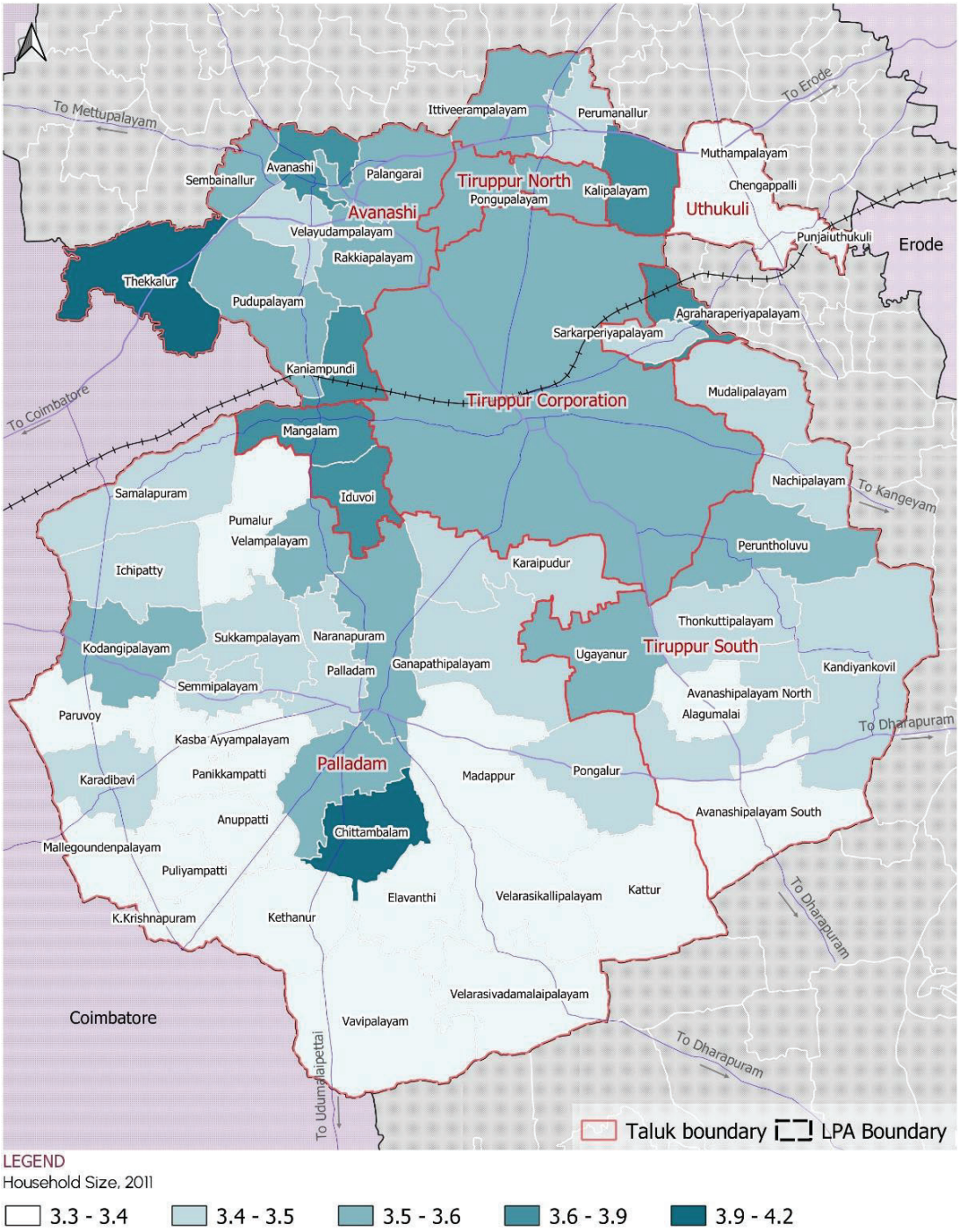
SOURCE – CENSUS OF INDIA

The table clearly shows that Tiruppur's average household size of 3.6 is below the national average household size of 4.4 as per census 2011 and less than the state average household size of 3.9.

HOUSEHOLD SIZE

TIRUPPUR CLPA

Scale 1:2,00,000



LEGEND

Household Size, 2011

3.3 - 3.4 | 3.4 - 3.5 | 3.5 - 3.6 | 3.6 - 3.9 | 3.9 - 4.2

Map 28 Household Size. Tiruppur LPA

5.3 EXISTING SLUM SCENARIO

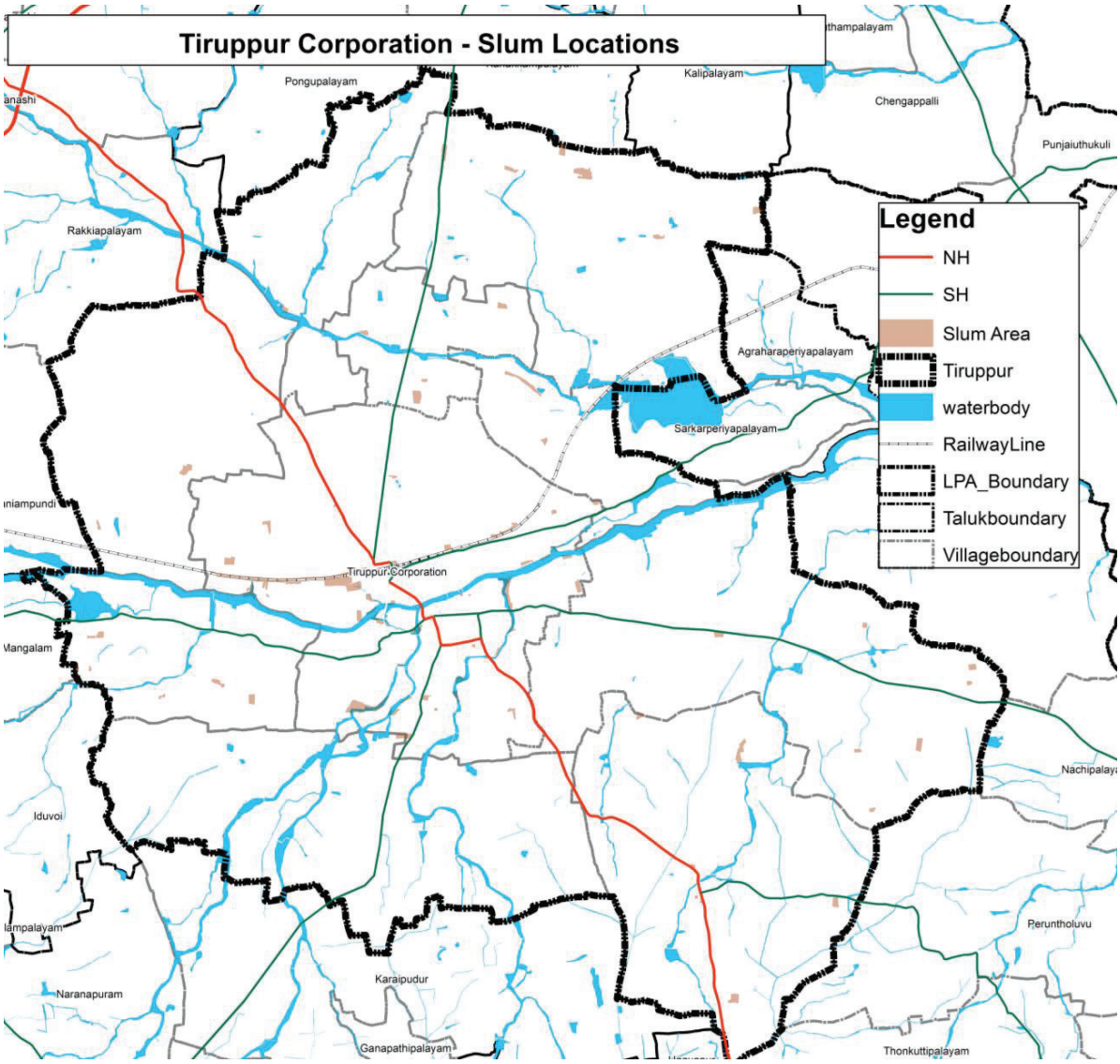
Slums are defined based on the condition of the area and the buildings. An area, which is described as a source of danger to the health and safety of the people living in the area and its neighbourhood and buildings, which are considered as unfit for human habitation. Slums have been either improved or redeveloped under various programs such as JNNURM, and PMAY.

The term squatter describes a wide range of low-income settlements or poor living conditions. Slum at its simplest definition is a heavily populated area characterized by substandard housing and squatter. In the last decade, slum upgradations are executed under schemes and policies like JNNURM, and PMAY.

Table 29 Slum Populaiton, Tiruppur LPA

TOWN NAME	SLUM HOUSEHOLDS	SLUM POPULATION
Avanashi (TP)	173	691
Thirumuruganpoondi (TP)	239	815
Uthukuli (TP)	286	1129
Velampalayam (M)	1973	8230
S.Nallur (M)	2255	9321
Tiruppur (M.Corp)	49374	202628
Samalapuram (TP)	424	1682
Palladam (M)	2038	8183
	56762	**232679**

SOURCE – CENSUS OF INDIA


Tiruppur Corporation - Slum Locations
Pongupalayam
Kalipalayam
Chengappalli
Punjaiuthukuli
Rakkiapalayam
Agraharaperiyapalayam
Sarkarperiyapalayam
Tiruppur Corporation
Nachipalaya
Iduvoi
Peruntholuvu
Karaipudur
Naranapuram
Ganapathipalayam
Thonkuttipalayam
Legend
NH
SH
Slum Area
Tiruppur
waterbody
RailwayLine
LPA_Boundary
Talukboundary
Villageboundary

5.4 HOUSING NEED AND DEMAND

Housing shortage shall be arrived by finding the additional households required in 2041, dilapidated, slum houses and homeless households in 2011. In Tiruppur LPA, housing shortage is 573415 as shown below.

SL.NO.	DESCRIPTION	POPULATION
1	Total Population 2011	1359814
2	Slum Households	56762
3	Houseless Households	117
4	Dilapidated houses	605
5	Households need in 2011	57484

SOURCE – CENSUS OF INDIA

06

PHYSICAL INFRASTRUCTURE

6 PHYSICAL INFRASTRUCTURE

Quality of life in any urban area is very much conditioned by the level of availability, accessibility, quality of physical and social infrastructure. Physical Infrastructure is one of the most important driving forces for economic development. Efficient water supply systems, sewerage systems, solid waste collection, and disposal systems are essential for good urban health and for leading productive lifestyles. The rapid growth of the population generates a need for the augmentation of physical infrastructure. An overview of the existing scenario in Tiruppur LPA is presented below followed by a future demand assessment.

6.1 WATER SUPPLY

Tiruppur City makes use of two different water schemes, which are supplied by the Mettupalayam Head works and TWAD Board. The first scheme is managed by the Tiruppur Municipal Corporation. It produces a capacity of 7 MLD to core cities in the Tiruppur District. The Mettupalayam water supply scheme was designed to meet up with the needs of Supply and Drainage Board. It produces a capacity of 45 MLD with 24 MLD being provided to the city of Tiruppur.

The remaining water is distributed to the wayside village Panchayats comprising 3 Lakh people every year. Water supply for Tiruppur Corporation is from perennial source River Cauvery and River Bhavani. Total Capacity of water supplied is 123MLD. Per capita supply is 118 LPCD. The Corporation authority now developed the water supply scheme with 16 over head tanks and 10 underground sumps so as to supply 25 million liters of water per day.

Table 30 Schemes for Water Supply, Tiruppur LPA

SL NO	PARTICULARS	SCHEME I	SCHEME 2	SCHEME 3
1.	Commissioned year	1965	1993	2005

SL NO	PARTICULARS	SCHEME I	SCHEME 2	SCHEME 3
2.	Ultimate design year	1991	2011	2030
3.	Source of Water	Bhavani River	Bhavani River	Kaveri River
4.	Water Drawn Source	Bhavani River-Mettupalayam	Bhavani River-Mettupalayam	Kaveri River-Anaisuvampalayam village-Erode
5.	Total Drinking water drawn Capacity	7.150 MLD	46.100 MLD	185.00 MLD
6.	Total Drinking Water Receiving	4.70 MLD	24.35 MLD	75.41 MLD
7.	Maintained by	Tiruppur Corporation	TWAD	New Tiruppur Area Development Corporation Limited

SOURCE – Tiruppur Corporation

Figure 18 Water Tank, Tiruppur Corporation

Figure 19 Water Treatment Plant in Annur for Tiruppur Corporation

S.Nallur, Velampalayam Municipalities and 7 villages are merged with Tiruppur corporation. Source of water for Municipalities are Bhavani River, Athikadavu having per capita supply ranges from 90LPCD to 135 LPCD. Total capacity of water supplied is 27.61 MLD. Town Panchayats have sources such as Athikadavu, River Cauvery, River Bhavani and local sources such as Borewell and open well. Per capita supply of water ranges from 88 LPCD to 135 LPCD.

Villages in the local planning area have water sources like borewell, open well and mainly Athikadavu scheme. Per capita supply of water ranges from 30 LPCD to 55 LPCD.

As per the guidelines of CPHEEO the supply of water supply to town and municipalities is given under the Table.

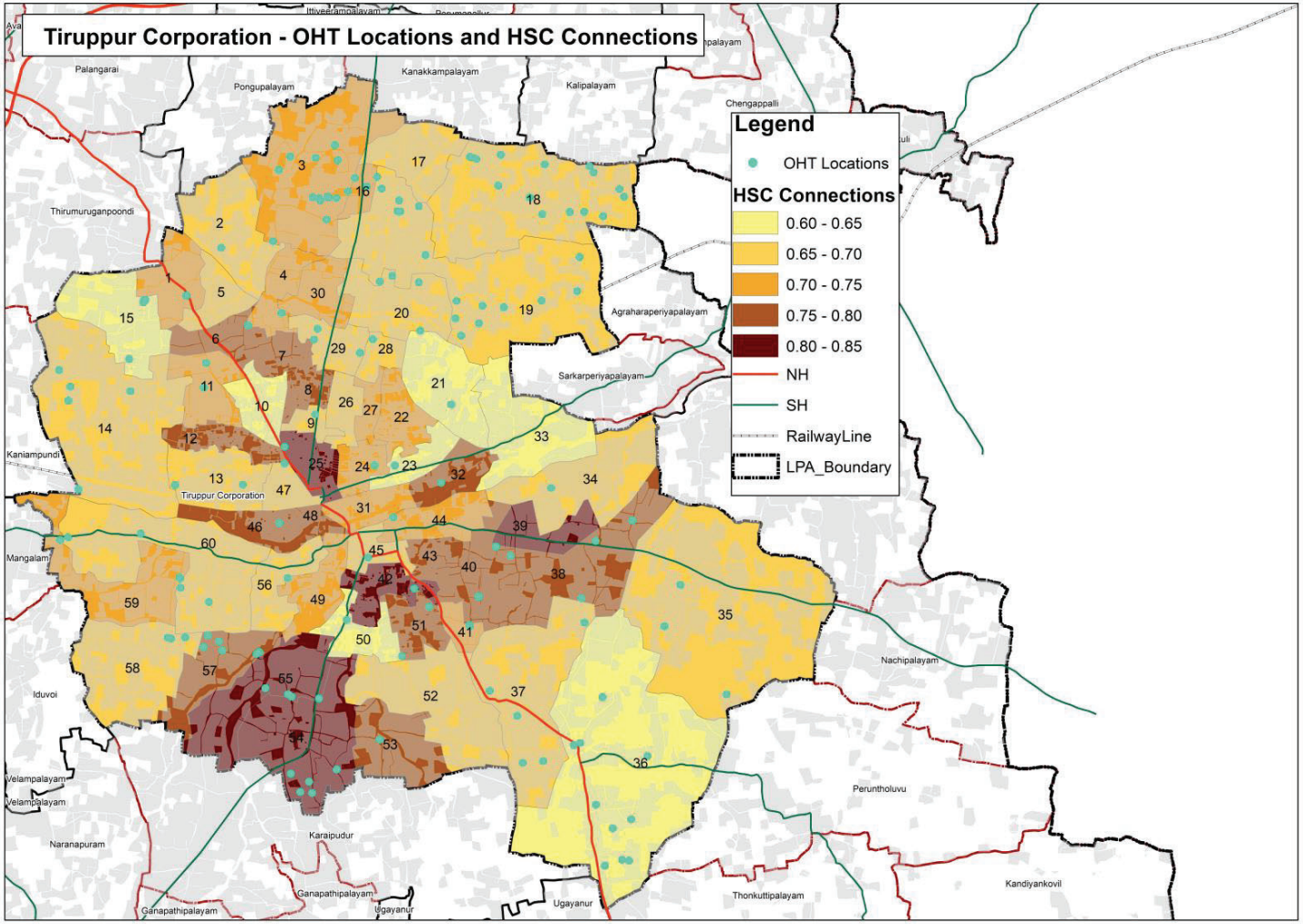
Table 31 CPHEEO Standards, Tiruppur LPA

S.NO.	ULB	WATER SUPPLY (LPCD)
1	Towns provided with piped water supply but without sewerage system	70
2	Towns provided with piped water supply with sewerage system & Towns adjoining the boundary of Corporation	90
3	Municipalities provided with piped water supply without sewerage system	90
4	Municipalities provided with piped water supply with sewerage system	135

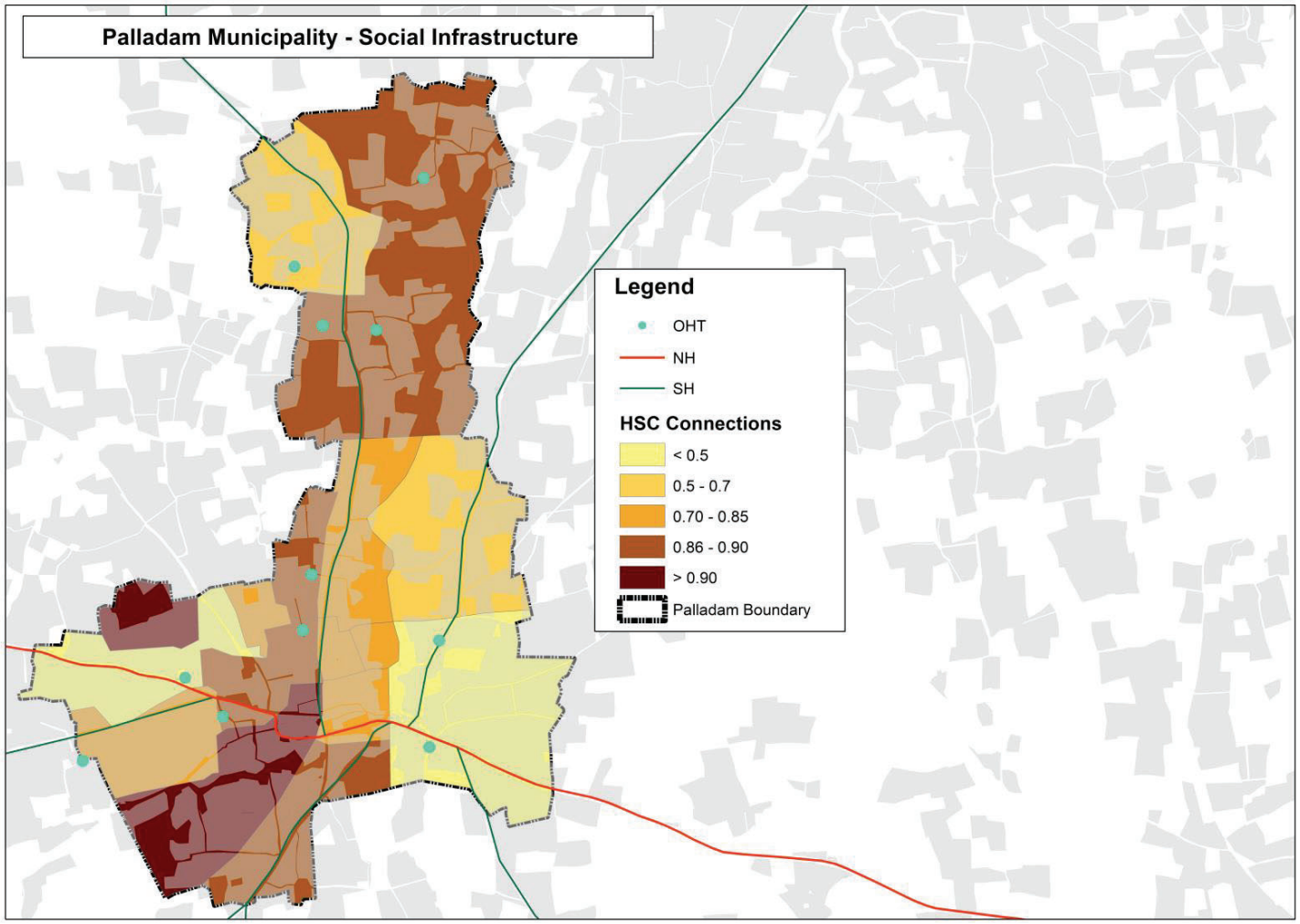
Table 32 Water Supply, Tiruppur LPA

	DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES
1	Water Supply Source	Bavani River, Cauvery River – NTADCL	Bavani River - CWSS Cauvery River – NTADCL	Pillur-Athikadavu - CWSS	Pillur-Athikadavu - CWSS Bavani River - CWSS Cauvery River – NTADCL	Pillur-Athikadavu - CWSS, Bavani River, Cauvery River
GAP ANALYSIS FOR WATER SUPPLY IN 2021						
2	Population 2021	11,65,927	41,809	55,994	68,992	4,65,810
3	Available Water Supply Quantity (MLD)	196	2.75	4	7.1	21.03
4	Per Capita Supply (LPCD)	135	77	71	103	45
5	Per Capita Norms (LPCD)	135	135	135	135	70
6	Industrial Demand	49.16	-	-	-	-

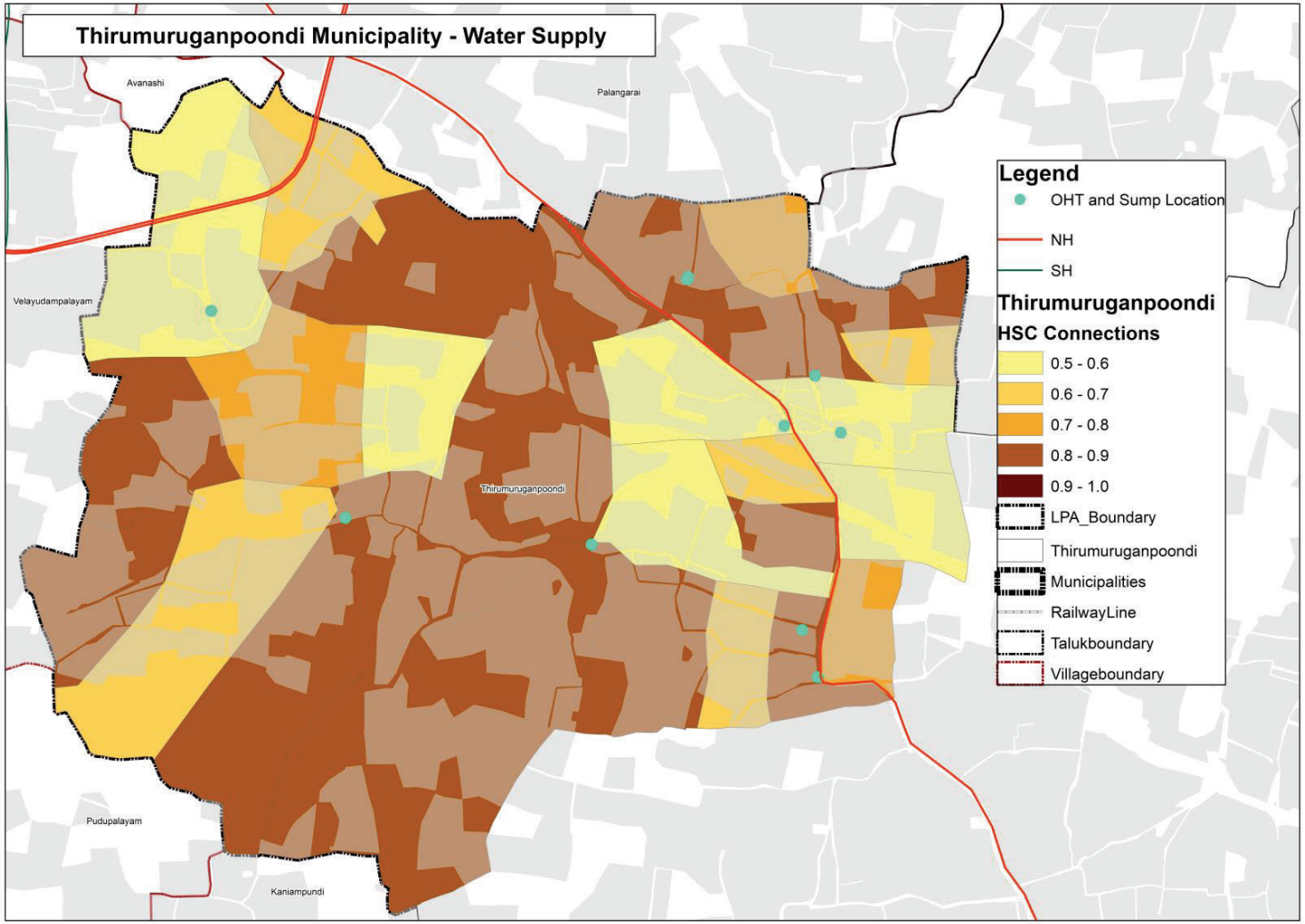
	DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES
7	Quantity of Water as per standard (MLD)	157.40	5.64	7.56	9.31	32.61
8	**Demand Gap in MLD in 2021**	**10.56**	**2.89**	**3.56**	**2.21**	**11.58**
9	No. of OHTs	70	5	12	17	954
10	Total Capacity of OHTs (ML)	76.05	0.86	1.5	2.4	23.66



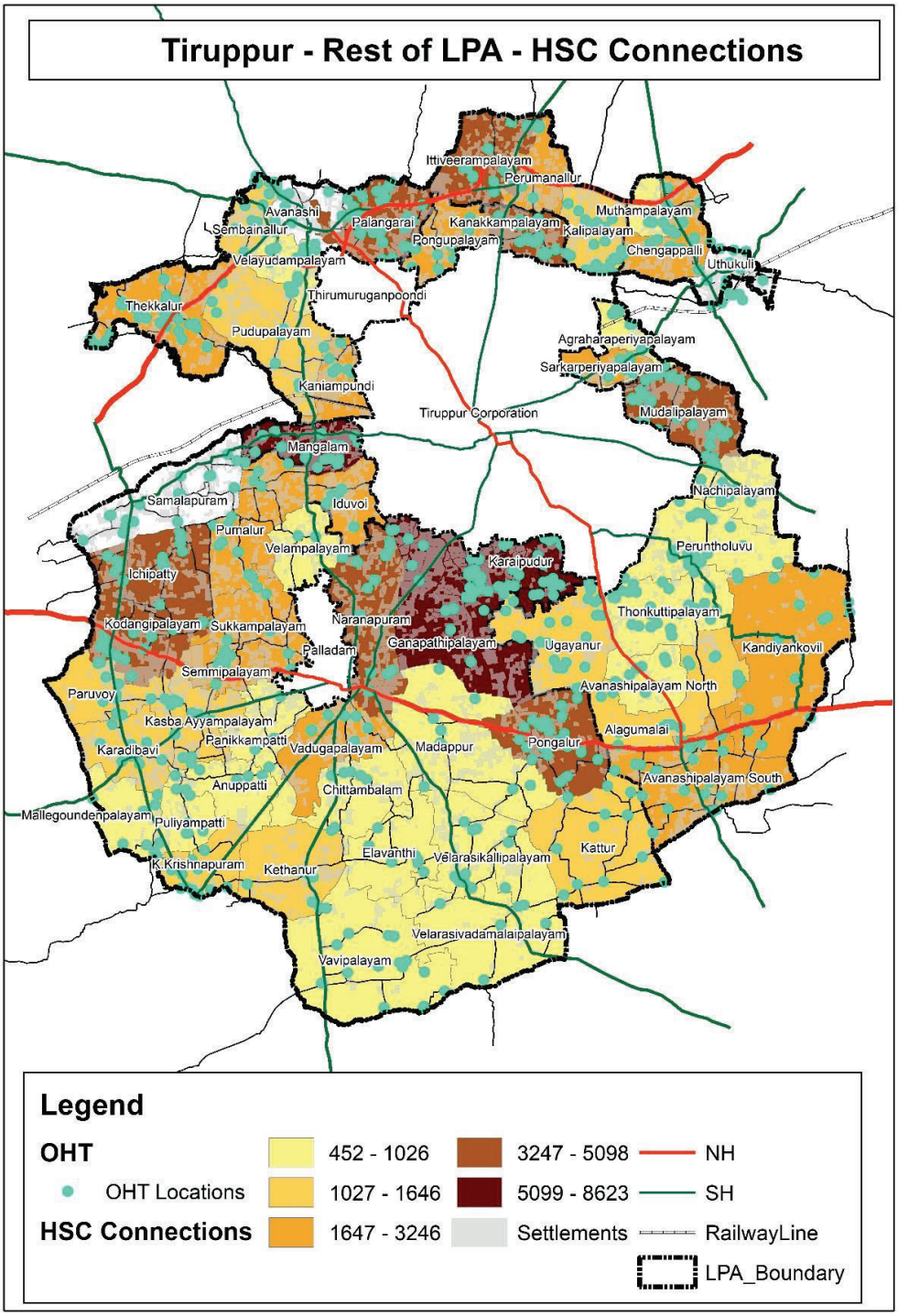
Map 29 OHT Location and HSC Connections, Tiruppur Corporation



Map 30 OHT Location and HSC Connections, Palladam Municipality



Map 31 OHT Location and HSC Connections, Thirumuruganpoondi Municipality



Map 32 OHT Location and HSC Connections, Rest of LPA

6.2 STORM WATER DRAIN

Storm water drainage aids in regulating the urban floods and rainwater run-off in a planned manner. This shall assist in enhancing the ground water and surface water recharge. The area lies at an altitude of 295 metres above mean sea level. The undulated terrain both helps and hinders the rainwater run-offs. If planned properly based on the terrain, the rainwater and storm water can be regulated in a planned manner. The covered and uncovered drain length of corporation is 1506.47km.

Table 33 Storm Water Drain Length, Tiruppur LPA

DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI MUNICIPALITY	PALLADAM MUNICIPALITY
Total Drain Length in km	1506.47	39	110.70
Open Drain in km	1431.25	37	109.80
Closed Drain in km	75.22	2	0.90
Road length in km	1332.84	107.19	76.24
Percentage of Roads with Drain	113.03%	35.71	114%

Figure 20 Ariel Image of laid storm water drain

Drainage system of 18.67 kilometer has been constructed for Flood alleviation in Tiruppur Corporation. The existing storm water drainage system parameters benchmarked against the normative/standard requirements or service levels as prescribed by reference guidelines/standards such as CPHEEO guidelines, prevalent level of services in similar cities with functional (good) urban infrastructure is furnished in the Table below.

Table 34 Storm Water Drain Standards

S.NO.	SERVICE INDICATOR	NORMATIVE STANDARDS (%)
1	Road length covered with storm water drainage	130
2	Pucca Drains (Open & Closed)	100
3	Road length covered with Pucca drains	130

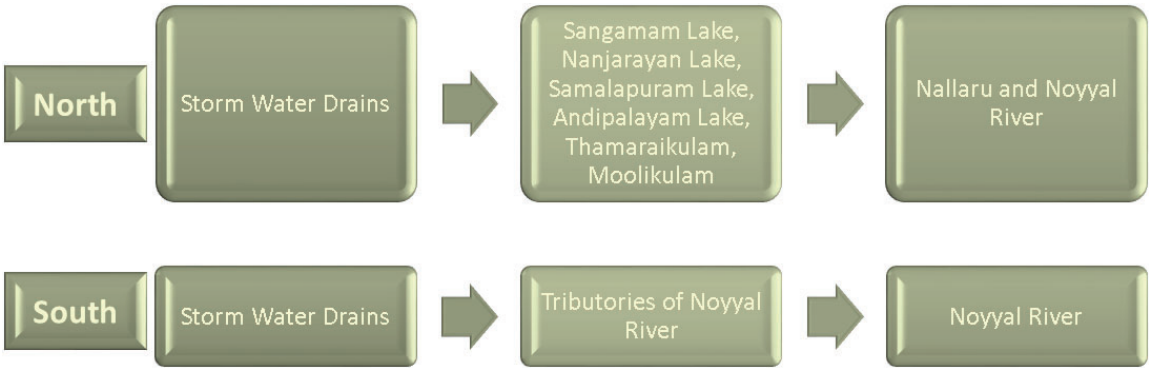
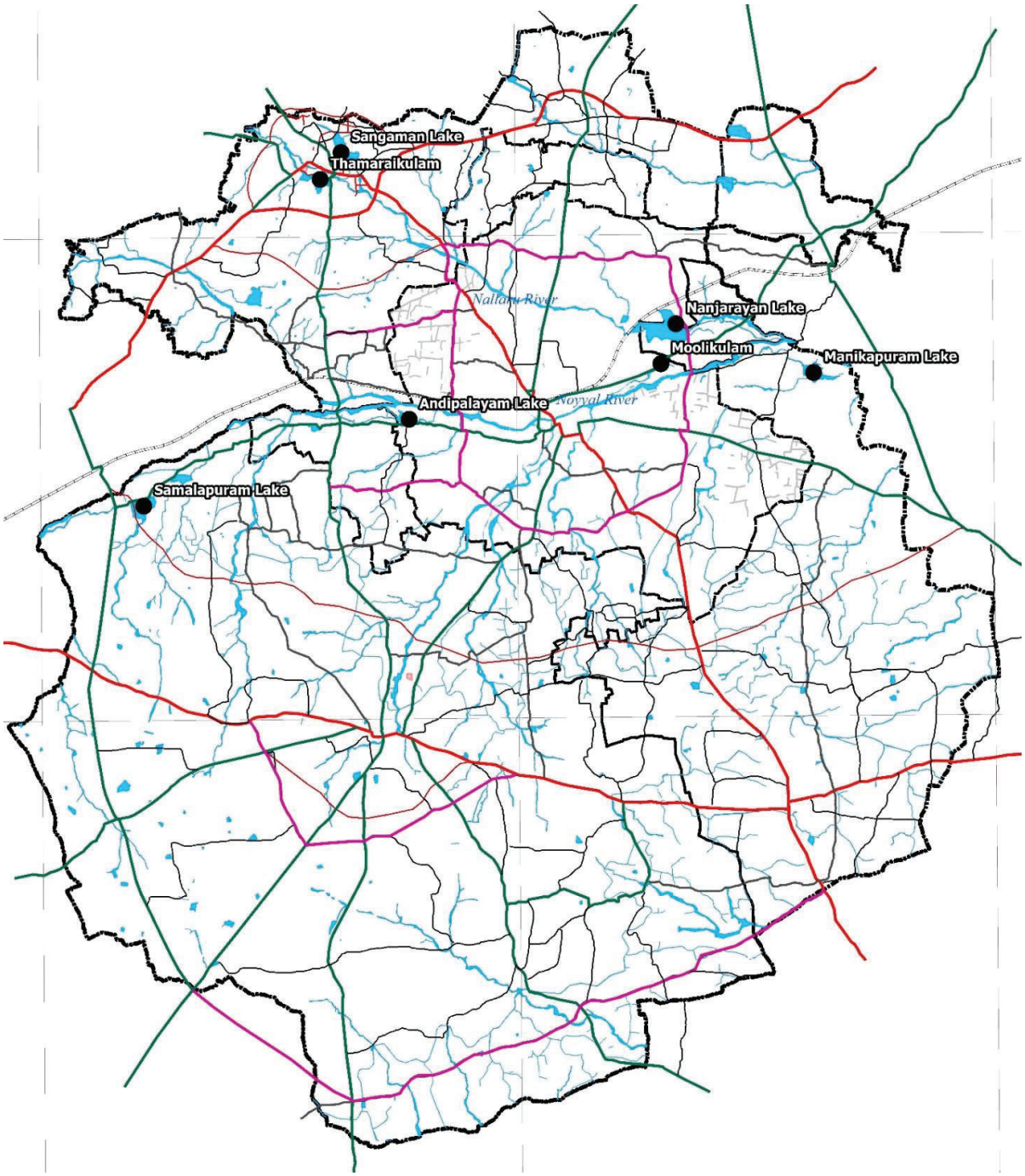
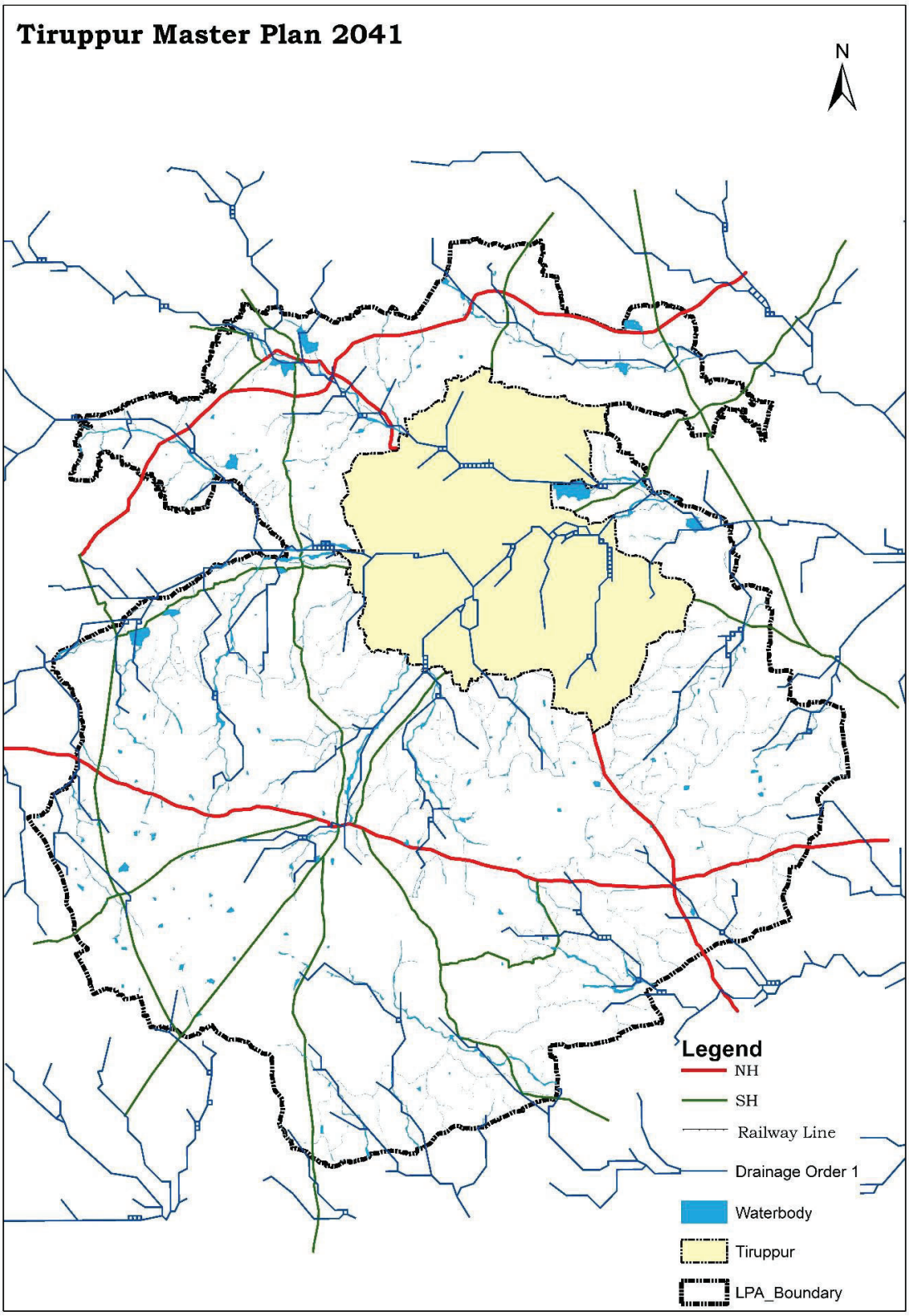


Figure 21 Rain Flow Pattern, *Tiruppur LPA*



Map 33 Major Water Bodies, Tiruppur LPA


Tiruppur Master Plan 2041
N
Legend
NH
SH
Railway Line
Drainage Order 1
Waterbody
Tiruppur
LPA_Boundary

For rural area proper drains are constructed to discharge storm water drained in all streets to the nearby water bodies. Certain approaches in storm water management aim to rebuild the natural water cycle, i.e. to store run-off water (e.g. retention basins) for a certain time, to recharge ground water (e.g. infiltration basins) and to use the collected water for irrigation or household supply. Most indigenous approach to storm water management collects the rainwater run-off in surface watersheds such as ponds, lakes in the region. It is recommended to clean and regenerate the existing water bodies and link them to create a hierarchy of water collection system. Rainwater harvesting and management hold tremendous potential for alleviating storm water run-off and increasing groundwater, particularly in urban areas.

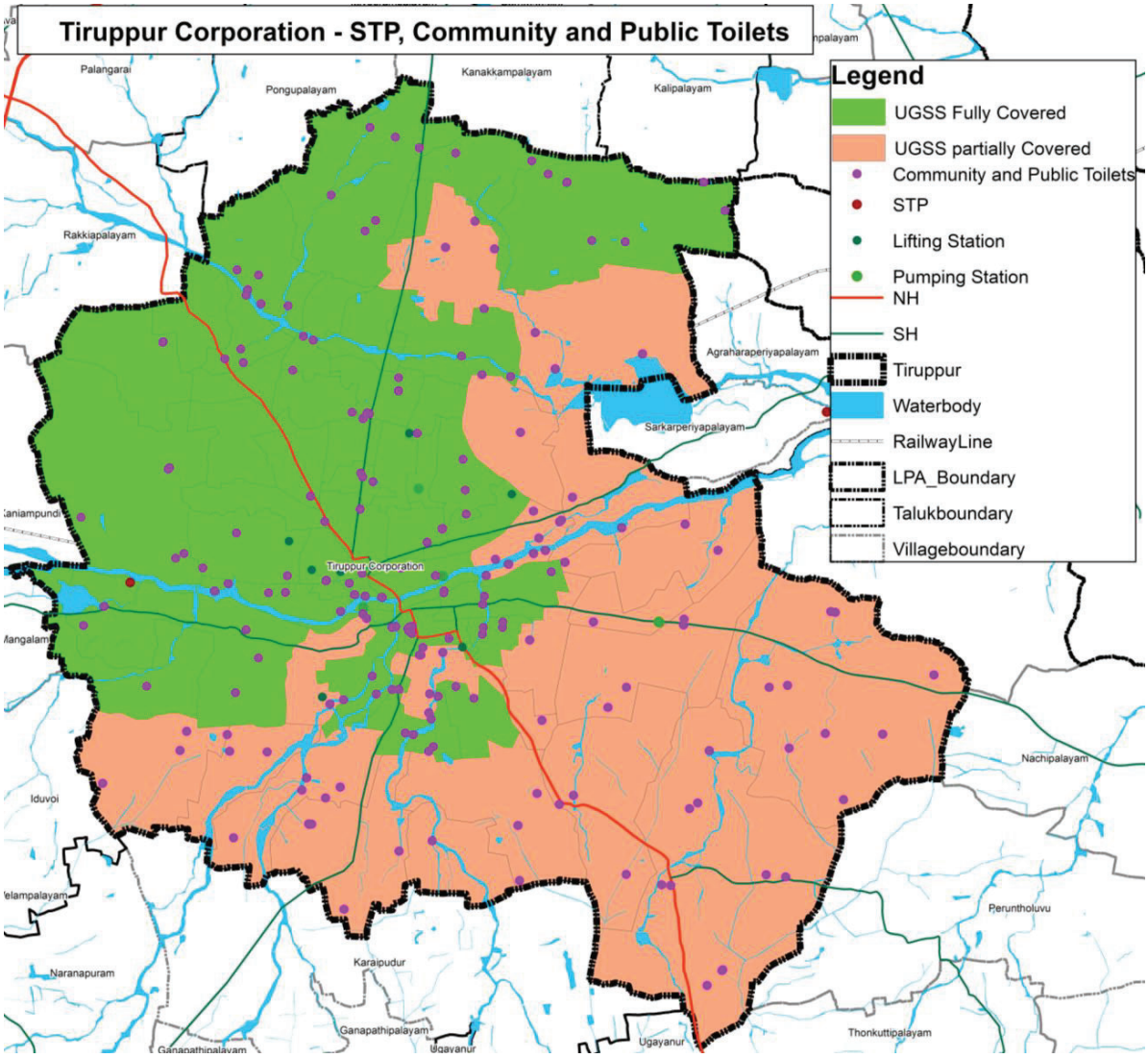
6.3 SEWARAGE AND SANITATION

Table 35 Sewarage Details, Tiruppur Corporation

Population 2021	11,65,927
Total Households	2,85,206
Total Water Supplied (MLD)	157.40
Sewage Generation (MLD)	125.92
Existing STP Capacity MLD	80
Additional STP Requirement in MLD	45.92
Lifting Stations	7 nos
Pumping Stations	4 nos
Community and Public Toilets	203 nos

Tiruppur Corporation has underground sewerage system and other urban centres have storm water drains used as sewage disposal.

In Tiruppur Corporation, STP of capacity 15MLD is present in Sircar Periyapalayam which is installed over an area of 40468 Sq.m with a working capacity of 100% 15MLD. Two other STPs and constructed and is ready for operation totalling a capacity of 80 MLD. Other urban centres and villages have septic tanks for processing the sewage generation.



Map 34 STP, Community and Public Toilets, Tiurppur Corporation

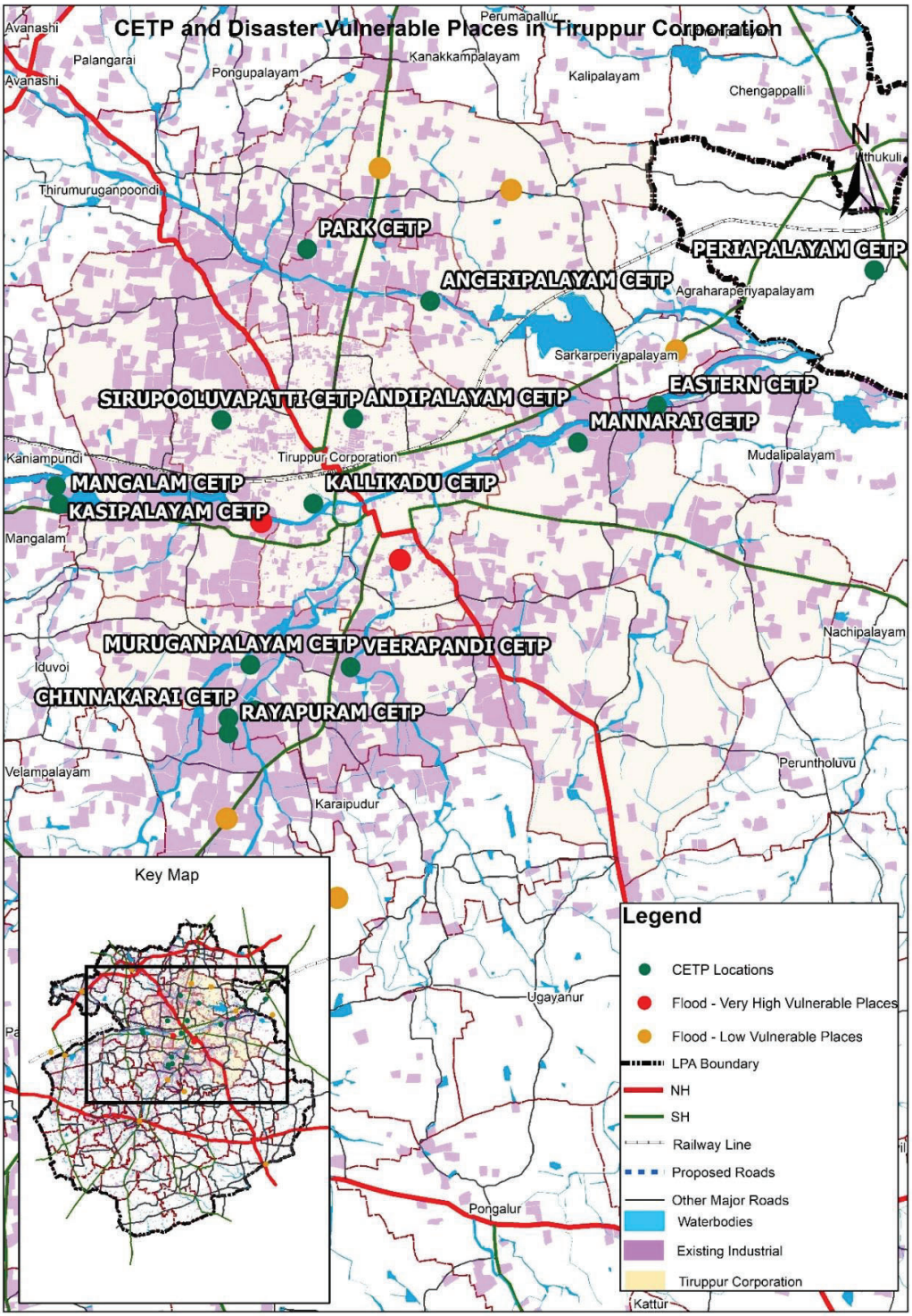
S.NO	DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES
1	Population 2021	11,65,927	41,809	55,994	68,992	4,65,810
2	Available Water Quantity at Source (MLD)	196	2.75	4	7.1	21.03
3	Quantity of Water as per standard (MLD)	157.4	5.64	7.56	9.31	32.61
4	Sewage Generation in MLD	125.92	4.51	6.05	7.45	26.09
5	Method of Disposal	UGSS, STP and Septic Tanks	Septic Tanks	Septic Tanks	Septic Tanks	Septic Tanks
6	Capacity of STP in MLD	80	Nil	Nil	Nil	Nil
7	Additional STP Requirement **in 2021 in MLD**	**45.92**	**4.51**	**6.05**	**7.45**	**26.09**

Tiruppur North, Tiruppur South, Kangeyam, Avinashi and Uthukuli Taluks are coming under the jurisdiction of Tiruppur North office. There are 2251 (Red, Orange & Green Category) industries functioning within this office jurisdiction. 15 Common Effluent Treatment Plants (CETPs) with 322 member units are under operation and 92 dyeing / bleaching industries are under operation with Individual Effluent Treatment Plants (IETPs). All these CETPs and IETPs have provided Zero Liquid Discharge System (ZLDS). All these dyeing / bleaching units in an average generate 96 MLD of trade effluent. Out of the 96 MLD of trade effluent 98% of the effluent is recovered and reused in the dyeing and bleaching industries as permeate, condensate and brine. The remaining effluent 2% is evaporated in Agitated Thin film drier, a minimal quantity of effluent is carried over along with the wet sludge and recovered salt. Sludge generated from the CETPs and IETPs, are transported to various cement industries for co processing. So far 96,535 T of sludge has been transported to cement industries for co processing. Mixed salt recovered from ATFD is stored in closed shed so far 44,335 T of mixed salt is stored in closed sheds within the premises of CETP's and IETPs. River Noyyal is flowing through Tiruppur. Noyyal River water quality is monitored on fortnightly basis by collecting water samples at five different locations of the River Noyyal. The average TDS level in River Noyyal water is between 1750 mg/l to 1973 mg/l.

Around 86.9 MLD of sewage generated from the habitations, commercial establishments, hospitals located in and around Tiruppur are discharged into River Noyyal. One Sewage Treatment Plant (STP) is operated with 15 MLD capacity at S.Periyapalayam, Tiruppur by New Tiruppur Area Development Corporation Ltd (NTADCL). Also, construction of 2 STPs of 36 MLD and 20 MLD capacity was under progress and expected to be completed within a year.

The disposal of sludge generated by the processing units in Tiruppur has for long been a contentious issue. Zero-liquid discharge (ZLD) is a water treatment process in which all wastewater is purified and recycled; therefore, leaving zero discharge at the end of the treatment cycle which has been involved with the treatment of industries in Tiruppur. ZLD is an advanced wastewater treatment

method that includes ultrafiltration, reverse osmosis, evaporation/crystallization, and fractional electrode ionization.



Map 35 CETP IN TIRUPPUR LPA

Table 36 CEPT – Common Effluent Treatment Plants details

S. NO.	NAME OF THE CETP	DPR QUANTITY (KLD)	PERMITTED QUANTITY (KLD)	WORKING PERCENTAGE
1	Andipalayam CETP	4500	2730	70%
2	Angeripalayam CETP	10000	9000	90%
3	Chinnakkarai CETP	8000	7200	90%
4	Eastern CETP	6000	4500	75%
5	Kallikadu CETP	3000	2700	90%
6	Kasipalayam CETP	4400	3520	80%
7	Mangalam CETP	3880	2716	70%
8	Mannarai CETP	4165	3749	90%
9	Park CETP	2500	2250	90%
10	Rayapuram CETP	5500	4950	90%
11	Sirupooluvapatti CETP	5000	4500	90%
12	S. Periyapalayam CETP	1200	180	15%
13	Tiruppur Murugampalayam CETP	10945	7013	75%
14	Veerapandi CETP	11954	10759	90%
15	Vettuvapalayam CETP	1300	195	15%
	Total	82344	65961	80%

SOURCE –Tiruppur City Municipal Corporation

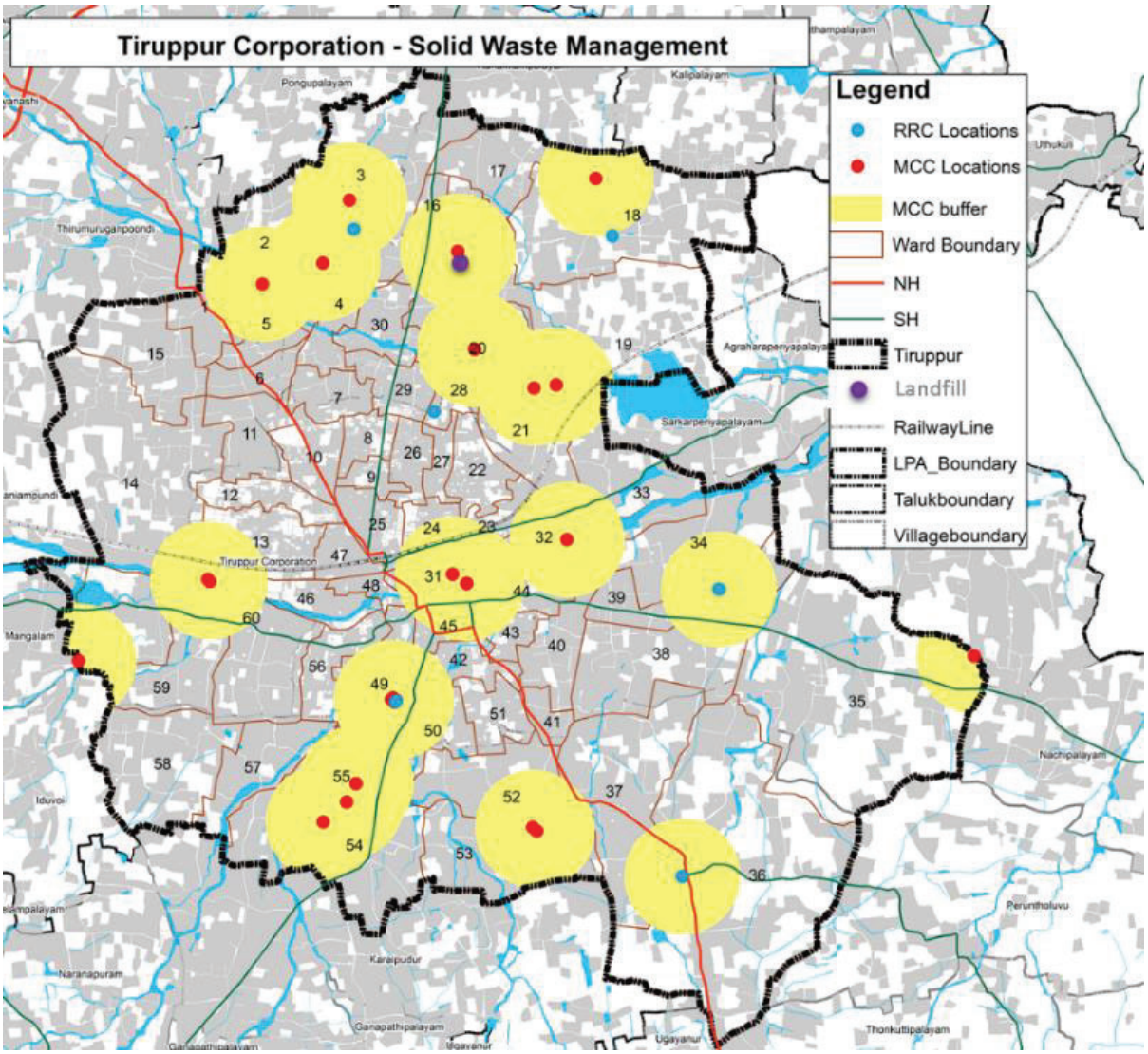
6.4 SOLID WASTE GENERATION

Solid Waste Management (SWM) involves management of various activities related in collection, storage, transportation, processing and disposal of solid waste in an environmentally compatible manner. Towns and cities have become the centres of population growth which accelerates the amount of corporation solid waste generation.

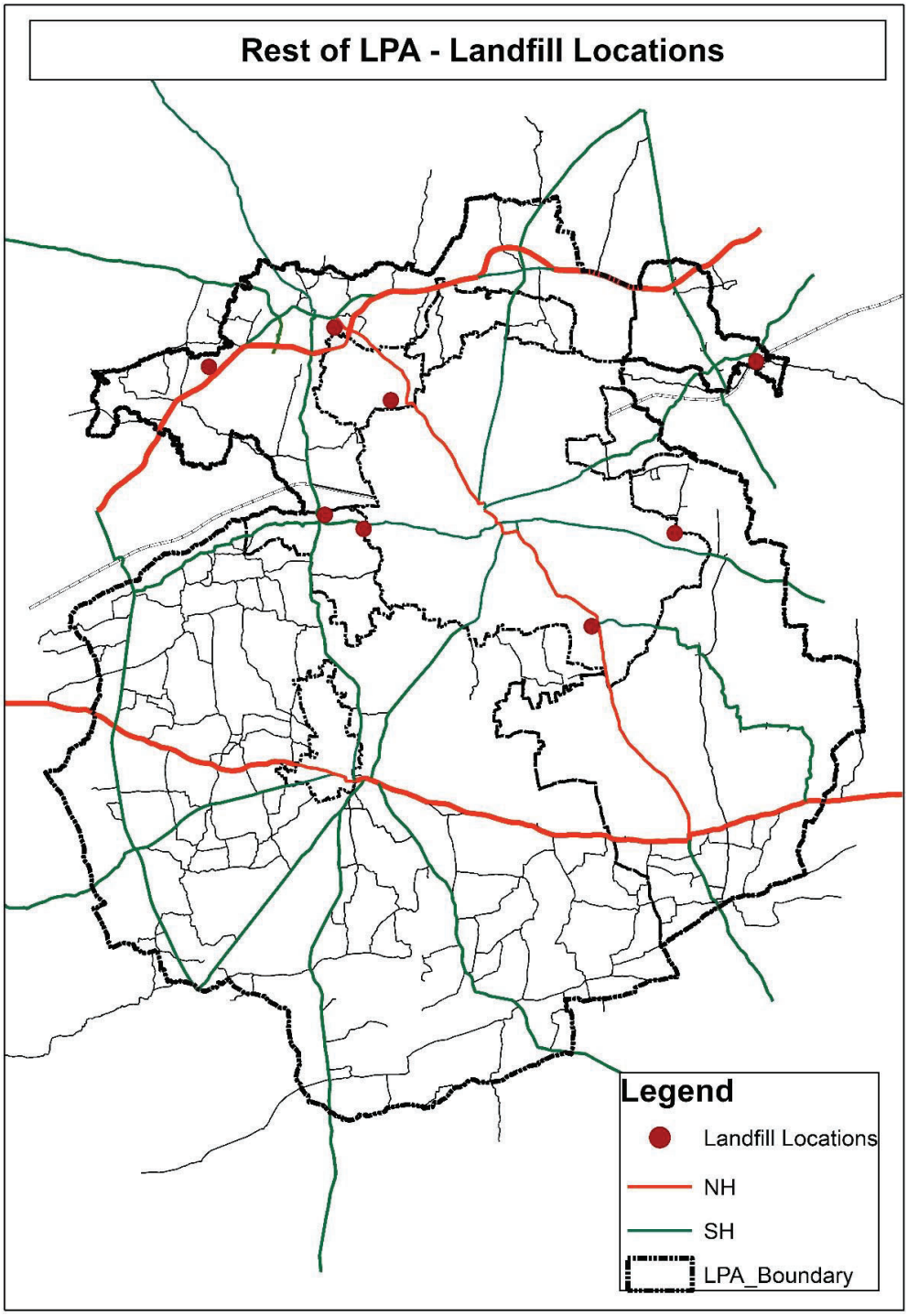
Solid waste and garbage are daily collected manually and transported through lorries and trucks. Tiruppur Corporation have introduced door-to-door collection of segregated waste using push carts in some of the developing areas covering a population of 100 percent.

Table 37 Solid Waste Generated, Tiruppur Corporation

Total Waste Generation	700 MT	
Wet Waste	315 MT	
Dry Waste	385 MT	
MCC	26 nos	130 MT
RRC	6 nos	30 MT
Bio methanation Plant	1 no	10 MT
Total Landfill Sites	3 nos	
Active sites	1 no	



Map 36 Solid Waste Management, Tiurppur Corporation



Map 37 Solid Waste Management, Rest of LPA

Table 38 Landfill SIte's Demand by 2041, Tiruppur LPA

DESCRIPTION	THIRUMURUGAN POONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES
Solid Waste Generated in MT in 2021	7.8	15.46	18.69	186.32
MCC Nos	nil	2 (10 MT)	nil	nil
Landfills	1.19 acres (Closed)	Nil	3 Nos	nil

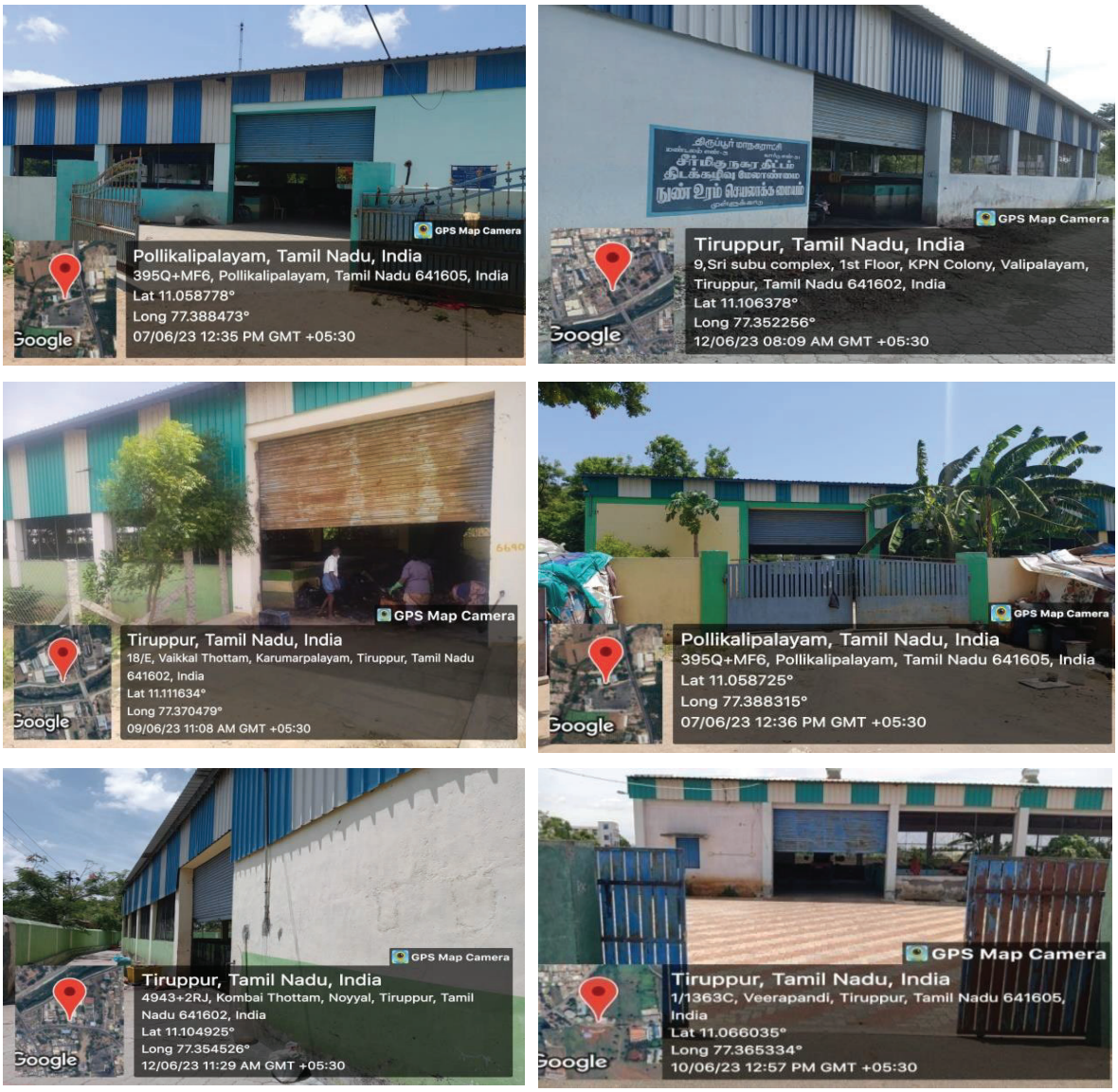


Figure 22 Solid Waste Processing Center, Tiruppur

Table 39 MCC Sites, Tiruppur Corporation

ZONE 1	WARD	ADDRESS
1	1	Chettipalayam
2	9	Vengamedu
3	10	Aathupalayam
ZONE 2	**WARD**	**ADDRESS**

1	2	Pandiyan Nagar
2	4	Samathuvapuram
3	6	Radha Nagar
4	5	Neruperichal
5	32	As.Pandit Nagar
ZONE 3	**WARD**	**ADDRESS**
1	33	Karumarampalaym Mcc
2	35	Mullukadu Mcc
3	45	Chellandiyammandurai Mcc
4	47	Mrg Nagar Mcc
5	48	Puthupalayam Mcc
6	60	Kovilvazhi Mcc 1
7	60	Kovilvazhi Mcc 2
ZONE 4	**WARD**	**ADDRESS**
1	28 , 29	Anaipalayam - Ii Noyyal Bridgr Near Anaipalayam , Tiruppur - 641687
2	36 , 37	Anaipalayam - I Noyyal Bridgr Near Anaipalayam , Tiruppur - 641687
3	38 , 39	Andipalayam Mangalam Main Road Andipalayam Lake Opp Tiruppur - 641687
4	40	Sundamedu - Ii Sundamedu Uphc Back Side Sundamedu Tiruppur- 641604

5	41	Sundamedu - I Sundamedu Uphc Opp Sundamedu Tiruppur- 641604
6	42	Santhaipettai - Iii Kallikaadu Thottam , Santhaipettai , Tiruppur- 641604
7	43	Santhaipettai - I Kallikaadu Thottam , Santhaipettai , Tiruppur- 641604
8	52	Santhaipettai - Ii Thennampalayam Fish Market Opp, Santhaipettai Tiruppur - 641604
9	53	Kuppandampalayam Kuppandampalayam Community Toilet Near Kuppandampalayam , Tiruppur - 641604
10	54 , 55	Palavanjipalayam - I Community Hall Back Side, Palavanjipalayam Tiruppur - 641605
11	57	Palavanjipalayam - Ii Cremation Ground Near Palavanjipalayam Tiruppur - 641605
12	57	Bio Methanation Plant Fish Market Near , Santhaipettai Tiruppur- 641604

SOURCE –Tiruppur City Municipal Corporation

The waste management system is satisfactory i.e., 100% collection of waste generation. Additional incineration and bio-mining waste processing paves way for better waste management. Micro-composting site are available within corporation. ULB plans to expand MCC facilities to cover the entire corporation. Well planned allocation of available resources, the application of proper technology and better sanitation standards, need to be enforced in order to provide environmental protection to the citizens of the growing town.

Village Panchayat with more than 10,000 population, adjacent to urban area, tourism and pilgrims centre, more floating population, with large industries and Institution are eligible to create Micro Compost Centre as per Rural Development and Panchayat Raj. MCC should be away from water bodies. Three compost yards shall be proposed in village panchayats.

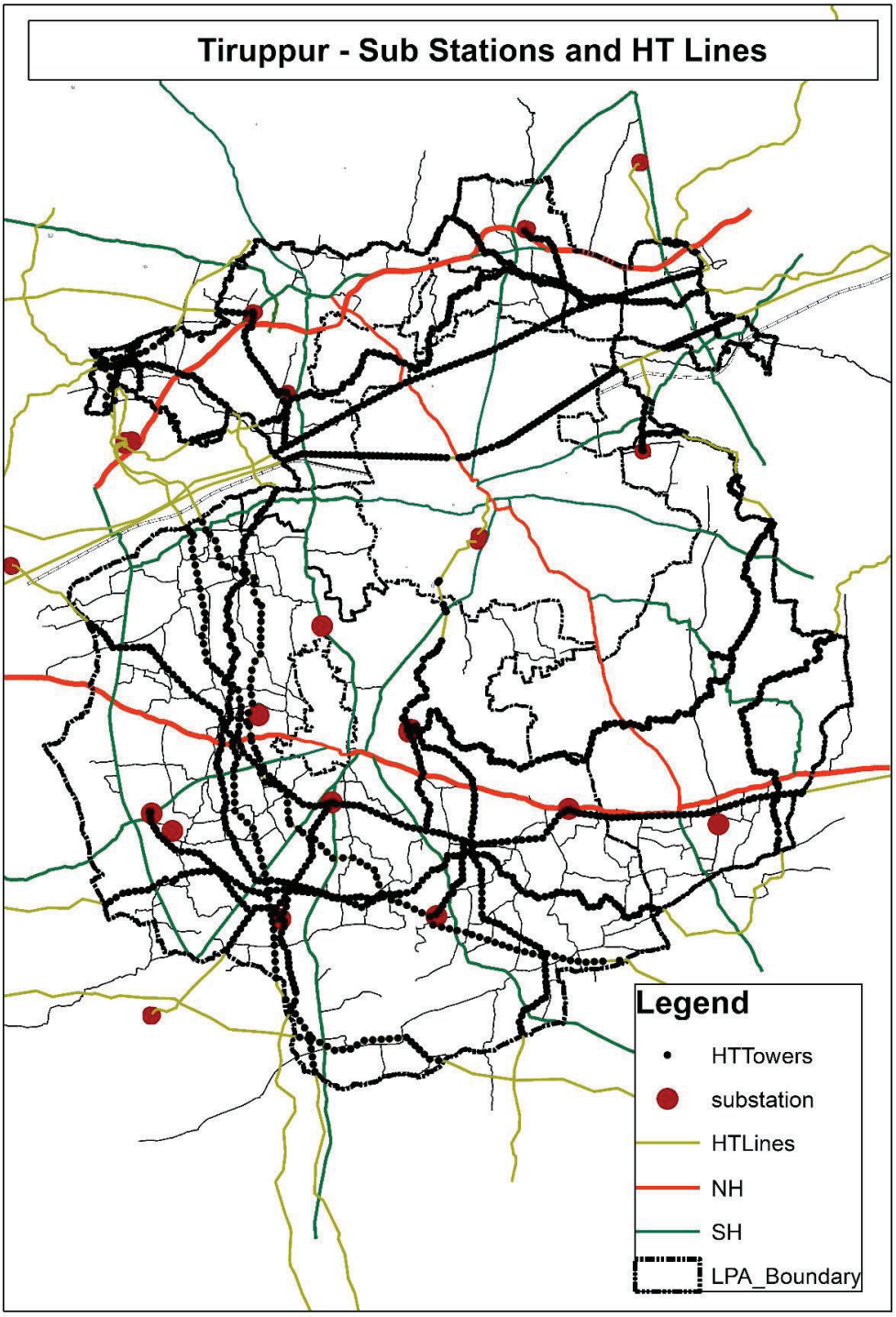
6.5 ELECTRICITY

TNEB (Tamil Nadu Electricity Board) distributes power directly to various consumers. The pattern of distribution of power in the town to different uses like industrial, domestic, commercial etc., with high tension and low-tension supplies is given in the table.

Table 40 Energy Consumption, Tiruppur

S.NO.	DESCRIPTION	ENERGY CONSUMED BY UNITS (KW)
1	Domestic utility	573487.439
2	Street light public water supply	300902.563
3	Government institutions	406177.466
4	Industrial utilities	676762.997
5	Commercial and others	782476.682

SOURCE – TANGEDCO



Map 38 Sub Station and HT Lines, Tiruppur LPA

07

SOCIAL INFRASTRUCTURE

7 SOCIAL INFRASTRUCTURE

Social infrastructure covers a range of services and facilities that meet local needs and contribute towards a good quality of life. It includes health provision, education, community facilities, youth, recreation, sports, faith, and emergency facilities. As the Town grows rapidly, the need to amplify the number of social infrastructures is essential to develop strong and inclusive communities.

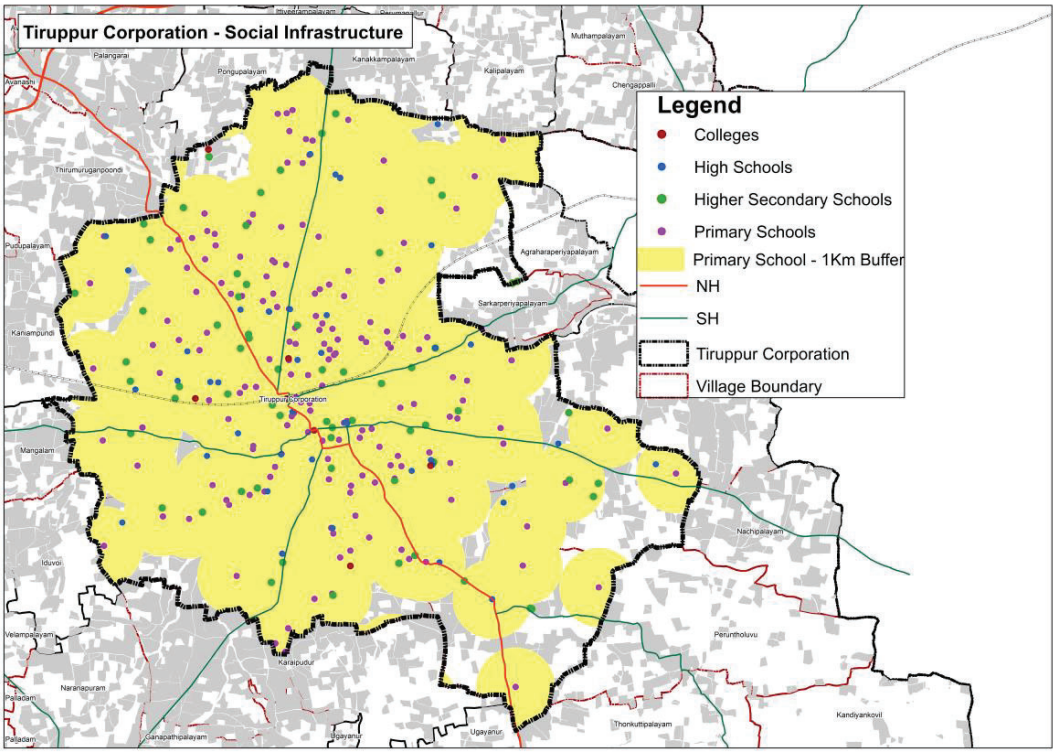
7.1 EDUCATIONAL FACILITIES

According to Tamil Nadu School Education Department, any place with a population of 300 and above must schools have located at a distance as mentioned in Table below.

Table 41 Distance Criteria by School Education Department, Tamil Nadu

S.NO.	TYPE OF INSTITUTION	DISTANCE
1	Primary Schools	1km
2	High Schools	5km
3	Higher Secondary Schools	8km

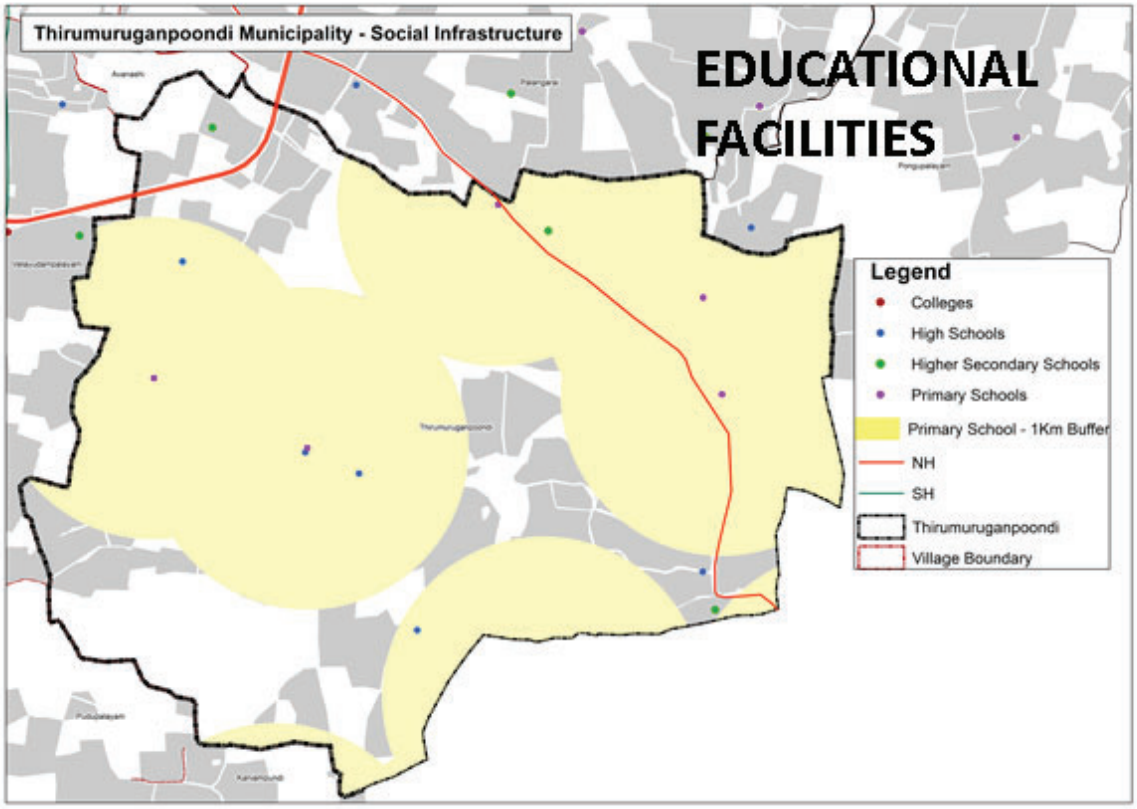
According to RTE Act 2009, a primary school must be accessed within a 1 km radius and a middle school within a 3 km radius. Presently, all the areas in Tiruppur LPA are adequately covered by school facilities except primary school based on the above-mentioned norms. Improving the existing facilities will enhance the quality of education in Tiruppur LPA.



Map 39 Existing Educational Facilities, Tiruppur Corporation

Table 42 Requirement of Educational Facilities, Tiruppur Corporation

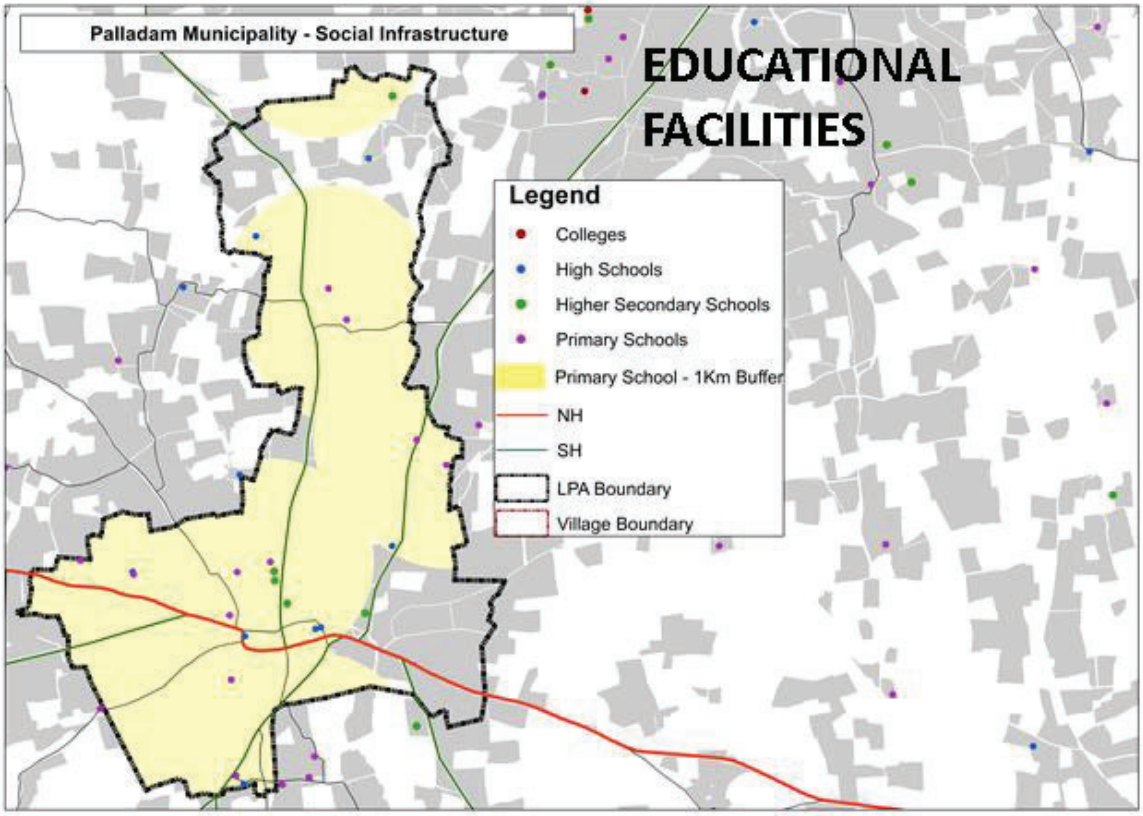
S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION
1	Primary Schools	282	233
2	High Schools	103	155
3	Higher Secondary Schools	63	155
4	Colleges	7	1
5	Medical Colleges	1	1



Map 40 Existing Educational Facilities, Tiruppur Corporation

Table 43 Requirement of Educational Facilities, Tiruppur Corporation

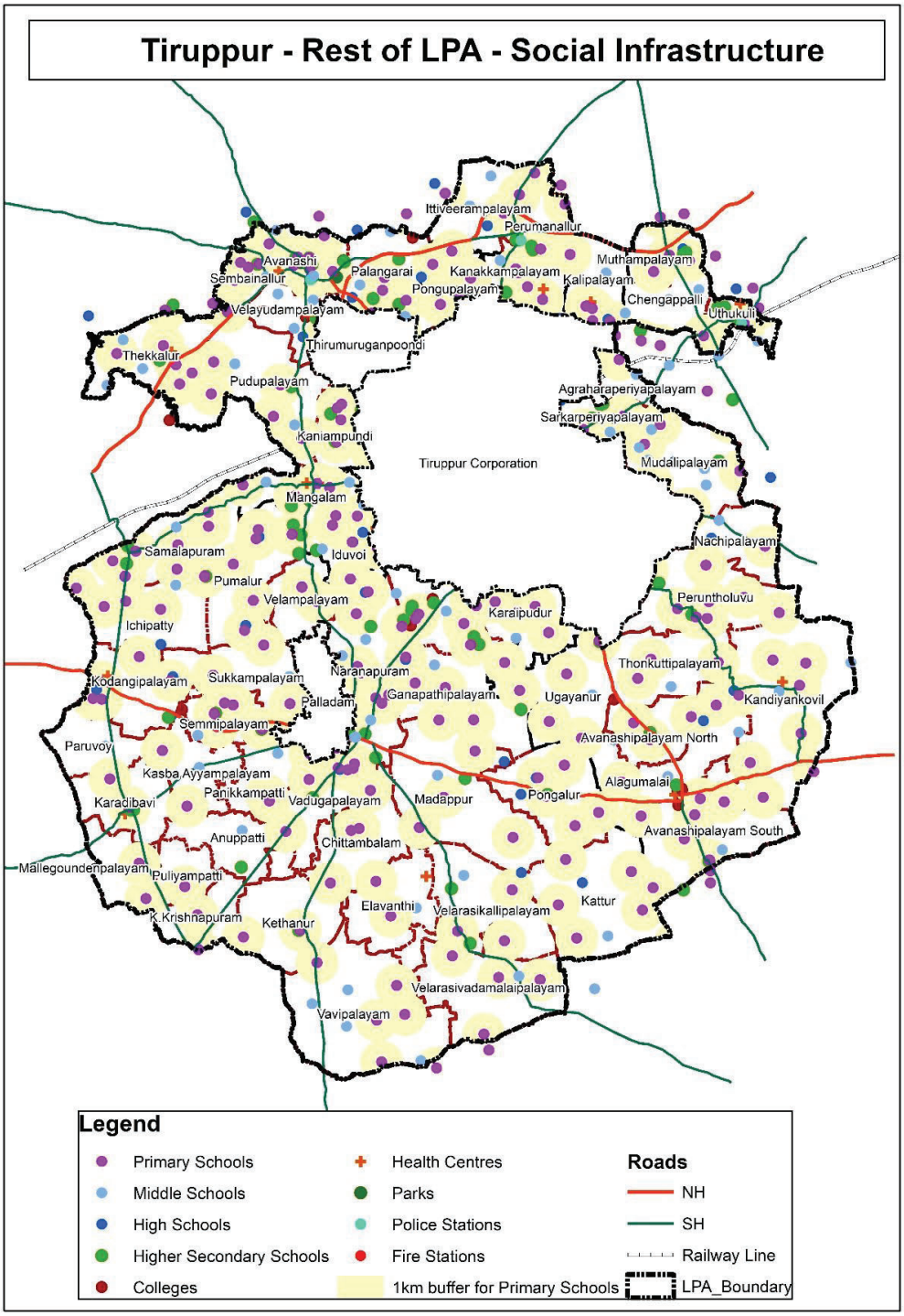
S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION
1	Primary Schools	12	8
2	High Schools	8	6
3	Higher Secondary Schools	3	6
4	Engineering Colleges	0	0
5	Medical Colleges	0	0



Map 41 Existing Educational Facilities, Tiruppur Corporation

Table 44 Requirement of Educational Facilities, Tiruppur Corporation

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION
1	Primary Schools	24	11
2	High Schools	13	8
3	Higher Secondary Schools	5	8
4	Engineering Colleges	0	0
5	Medical Colleges	0	0



Map 42 Existing Educational Facilities, Rest of LPA

Table 45 Requirement of Educational Facilities, Rest of LPA

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION
1	Primary Schools	421	106
2	High Schools	108	71
3	Higher Secondary Schools	48	71
4	Engineering Colleges	4	0
5	Medical Colleges	0	0

7.2 HEALTH INFRASTRUCTURE

Health system infrastructure improves effectiveness, safety, timeliness, patient-centeredness, access and efficiency. Inadequacies in health system infrastructure, limit access and contribute to poor quality of care and outcomes, particularly among vulnerable population groups.

Table 46 Health Infrastructure

S.NO.	HOSPITALS AND PHCS	NUMBERS
1	Government Hospital and Medical College Hospital	2
2	Primary Health Centre	17

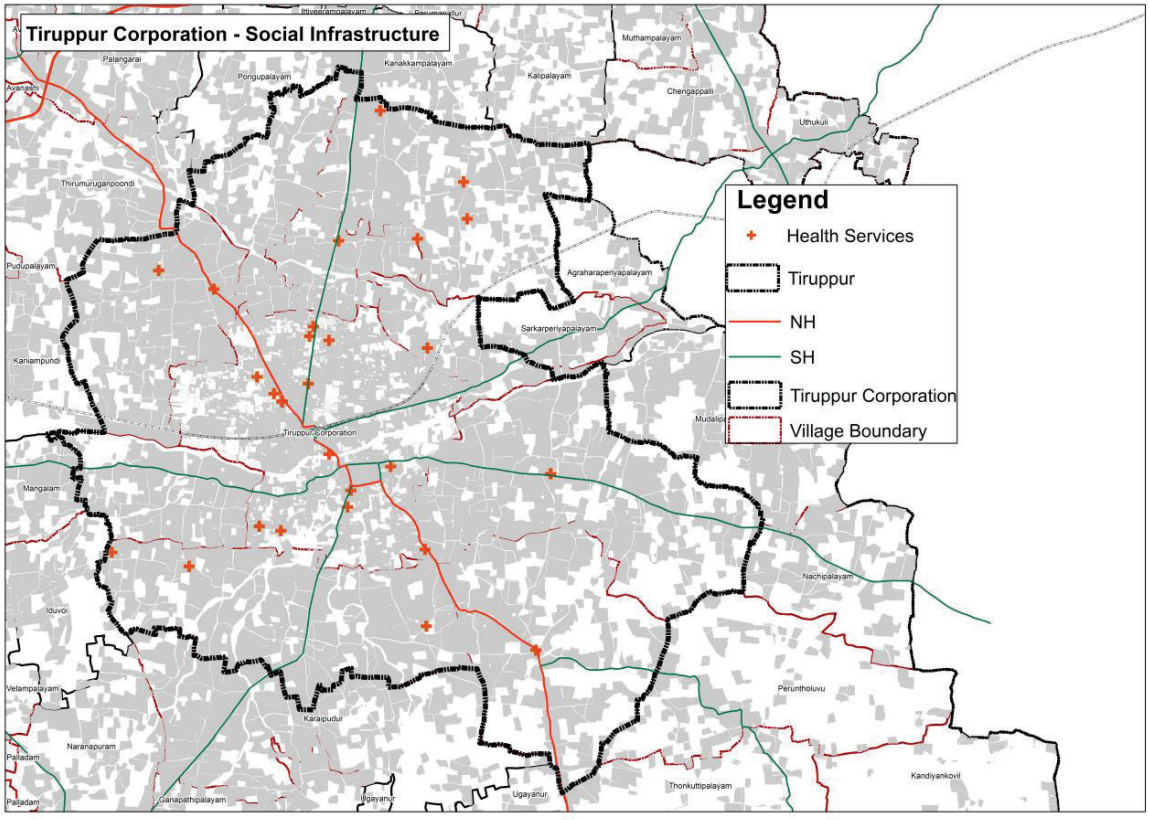
Table 47 Standard for Health Infrastructure (URDPFI)

S.NO.	TYPE OF HEALTH FACILITIES	POPULATION SERVED	REQUIRED NUMBERS FOR 2021 POPULATION
1	Government Hospital	2,50,000	8

2	Primary Health Centre (Urban)	50,000	40

Table 48 Health Facilities - Tiruppur Corporation:

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION
1	Primary Health Centre	18	11
2	Hospitals	4	4



Map 43 Existing Health Facilities, Tiruppur Corporation

Table 49 Health Facilities-Thirumuruganpoondi Municipality

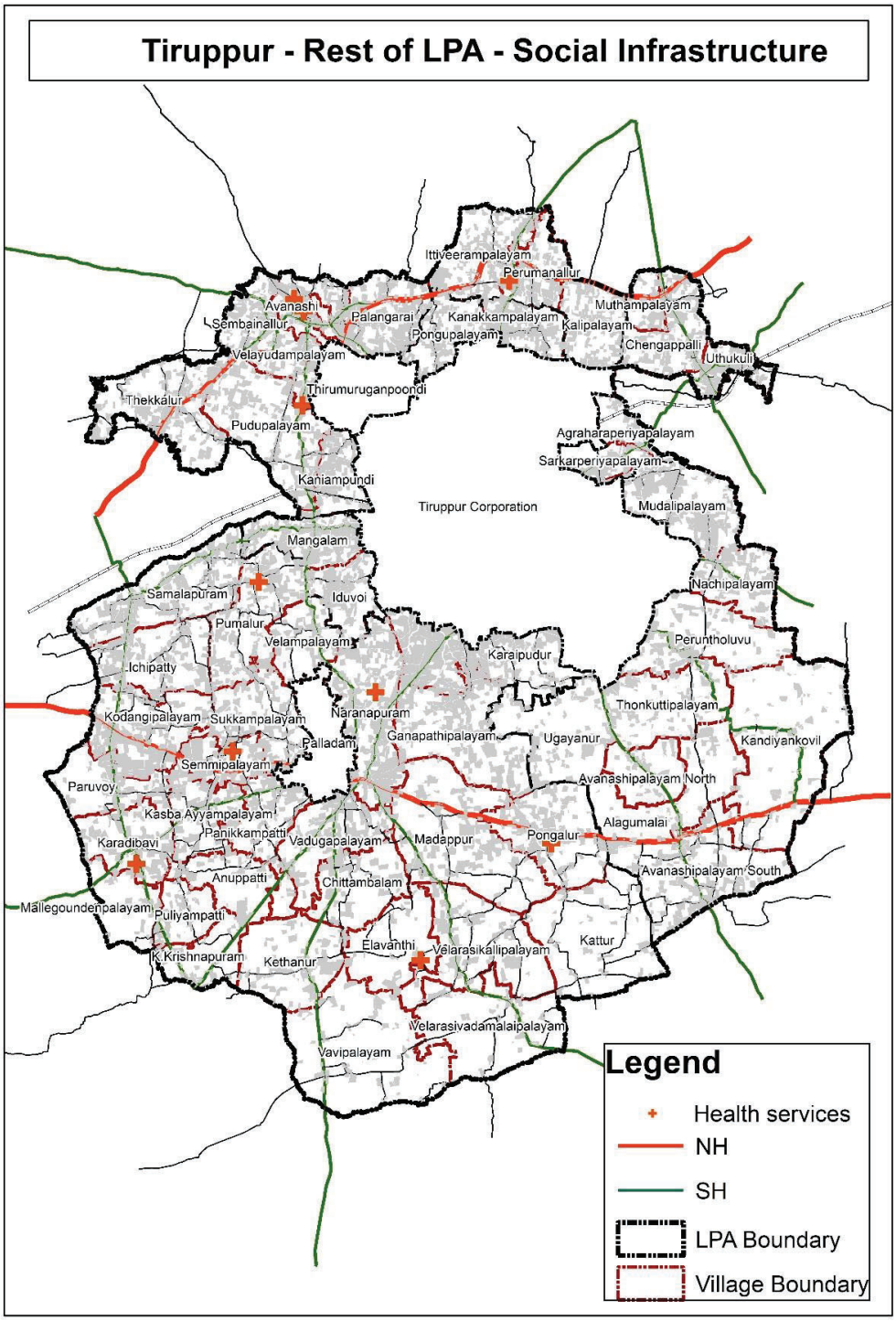
S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION
1	Primary Health Centre	0	4
2	Hospitals	1	1

Table 50 Health Facilities-Palladam Municipality

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION
1	Primary Health Centre	1	5
2	Hospitals	4	1

Table 51 Health Facilities-Rest of LPA

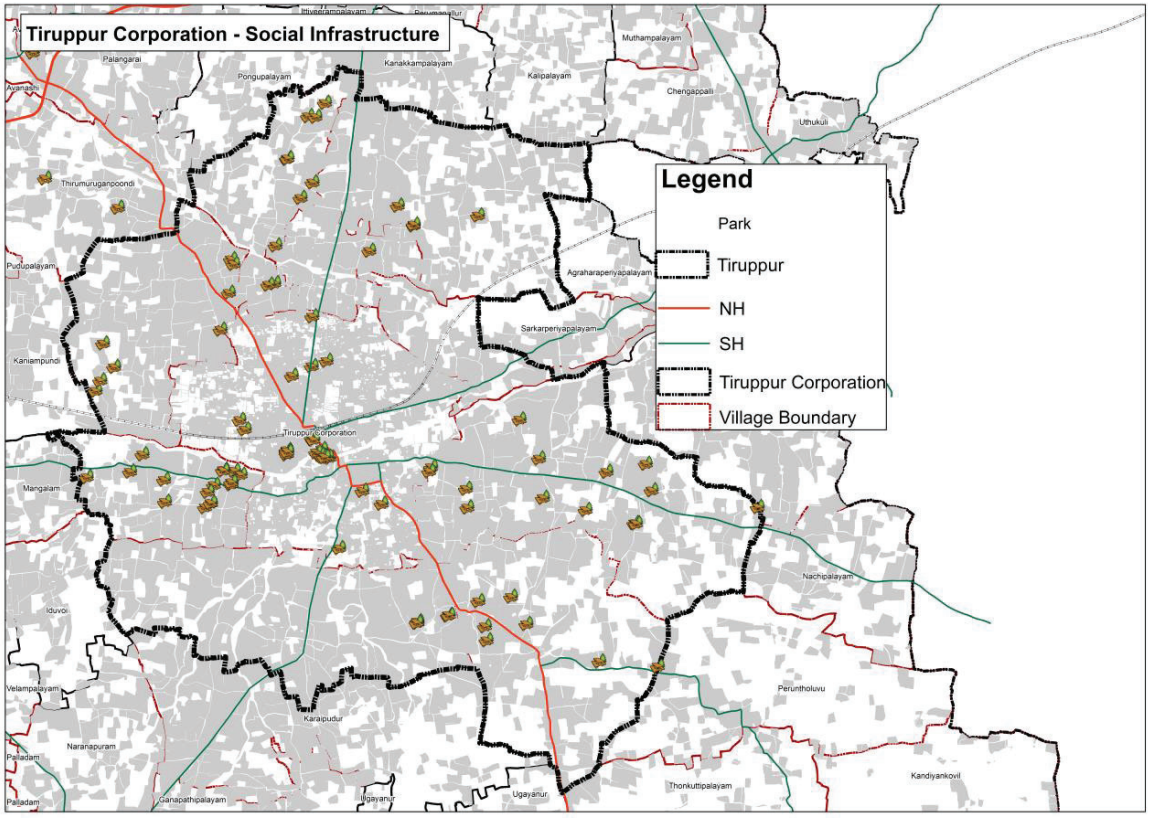
S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION
1	Primary Health Centre	36	53
2	Hospitals	0	5



Map 44 Existing Health Facilities, Rest of LPA

7.3 OTHER ESSENTIAL INFRASTRUCTURES

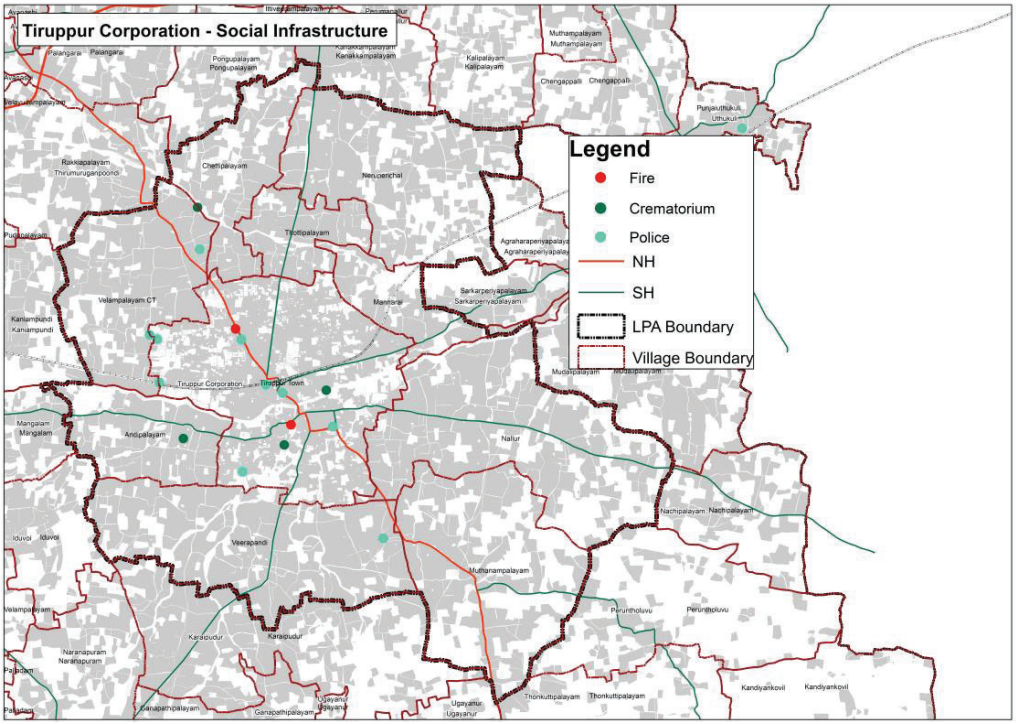
Parks, playgrounds and open spaces are 'lung' of the city. These public spaces provide better relaxation and quality of urban environment. Public sports facilities have played a very important role in promoting physical activity and participation in leisure sports activities. Therefore, there have been significant efforts to continue to improve the image of leisure sports and pursue the amelioration of service quality of public sports facilities.



Map 45 Park-Tiruppur Corporation

Assuming 12 sq.m per person, Corporation Park space required for the projected period 2041 is 47.77 Sq.km.

According to the URDPFI Guidelines on location of fire station, it is recommended to have a fire station for every 2 lakh population with a radius of 5-7 km.



Map 46 Fire Station & Police Station -Tiruppur Corporation

Fire and rescue service station is located in the core city. With the increase in population density, it is recommended to provide a fire station.

Standard for Fire Station

Table 52 Standards for Fire Station (URDPFI)

S.NO.	DESCRIPTION	STANDARD	AREA (HA)
1	Sub-Fire Station	Within 3-4 km radius	6.0
2	Fire Station	1 per 2 lakh population or 5-7 km radius	1.0

08

TRAFFIC AND TRANSPORTATION

8 TRAFFIC AND TRANSPORTATION

Local Planning Area (LPA) of Tiruppur Region is about 1049 sq.km. and includes many urban and rural settlements. The parent city of the LPA is Tiruppur City Municipal Corporation and some of the other major settlements are Palladam, Samalapuram, Avinashi, Uthukuli etc. The extent of the LPA limits is defined by the various settlements within the region where Tiruppur City Municipal Corporation is at the centre, Avinashi is the north-western extent, Uthukuli is the north-eastern extent, Avanashipalayam is the south-eastern extent, Palladam is the south-western extent and Samalapuram is the western extent. The Noyyal River and Railway Line passes along the east-west axis through the centre of the Tiruppur City Municipal Corporation.

Tiruppur City, situated in the west-central part of the state Tamil Nadu (India), is one of the major industrial and exports hubs in the country; manufacturing hosiery, knitted garments, casual wear, and sportswear. Over the years, the city has witnessed a major transformation from an agriculture-based economy in the 1950's to an industrial one in 1990's. The city has received world recognition as the leading source of cotton knitwear and accounts for about 90% of country's cotton knitwear export. With the strong growing economy and population within the region, the city and its neighboring settlements are facing several issues related to urban mobility at local and regional level.

8.1 ROAD NETWORK

Around 1332 km length of road network is present in Tiruppur Municipal Corporation. In that, 55 km length of road network is maintained by Highways department and remaining 1277 km length maintained by municipal corporation. The roads maintained by Highways department are li sted below:

- Kamaraj Road
- Avinasi road
- Perumanallur road
- Kumaran road

- Eshwaran Kovil road
- Dharapuram road
- Kangeyam road
- Mangalam road
- P.S. Sundaram road

The road classification based on the pavement type maintained by Tiruppur Municipal Corporation is presented in Table 4. It is observed from the below table that 72% of the roads in Tiruppur Municipal Corporation are Bituminous Roads and around 16% of the roads are unpaved.

Table 53 Type of Roads

TYPE OF ROAD	ROAD LENGTH IN KM
Cement Concrete Road	148
Bituminous Road	919
Un Paved Road	210

SOURCE – CMP for Tiruppur City Municipal Corporation

8.1.1 Registered vehicles

The total number of registered vehicles in Tiruppur LPA as on 31st March 2020 was 5.38 lakhs (under the Regional Traffic Office Tiruppur North, South and Avinashi), in which 4.52 lakh are two wheelers and 56,621 are car.

The analysis of vehicle registration data from the year 2011 to 2020, Compound Annual Growth Rate (CAGR) was calculated from 2011-12 to 2019-20 for various classes of vehicles and has been presented in the Table 5. It can be noticed that two-wheelers constitute to 84.2% of the total vehicles, followed by cars with 10.5%.

According to the vehicle registration and vehicle permit data, Tiruppur LPA grants permits for Auto Rickshaws, Taxi, Contract Carriages, Private Buses, School Buses and other passenger and goods vehicles. Till March 2020, vehicle permit data for Tiruppur LPA is collected and presented in the Figure 7. The region has 2,087 Auto Rickshaws and 2,279 taxies running with a valid permit.

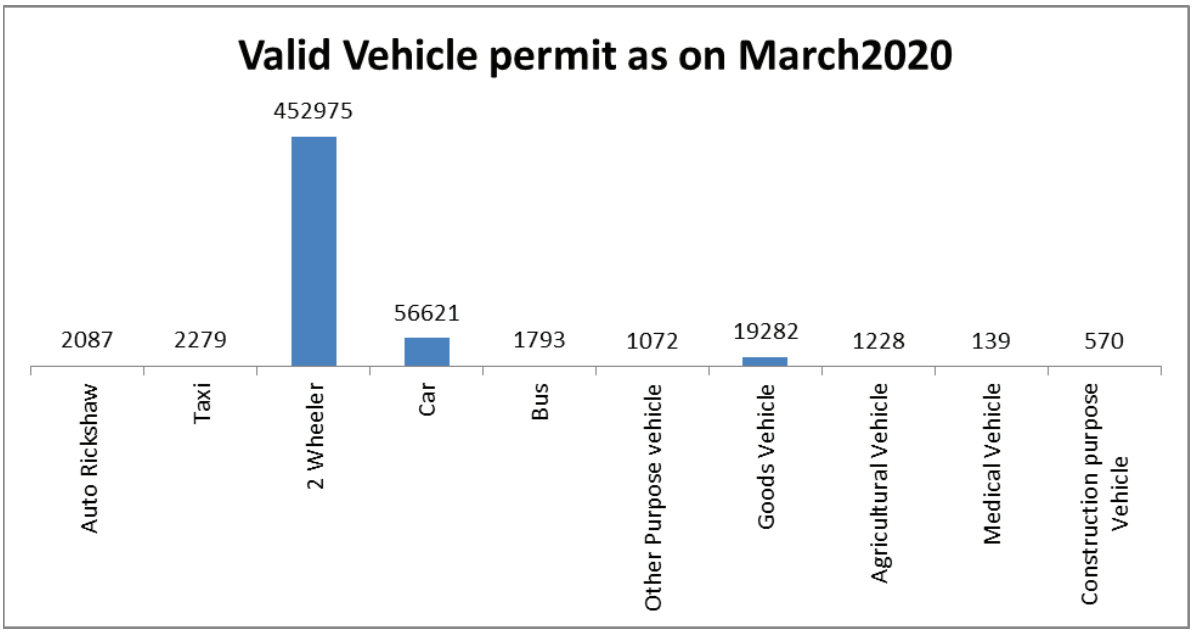


Figure 23 Valid Vehicle Permits, Tiruppur LPA

8.1.2 Major Roads

The Tiruppur LPA has good road connectivity with all the major settlements and well connected with various towns in Tamilnadu and neighboring states. The LPA has 3 National Highways, 14 State Highways, and 14 Major District Roads.

Mostly all the NH's, SH's and MDR's have a two (2) lane undivided (with shoulder) road configuration except NH-544 which has a 6-lane divided road configuration. Further, most of these regional roads like NH-81, SH-19, SH-19A, SH-163, SH-166, SH-196 etc., passing through Avinashi, Palladam, Pongalur, Perumanallur etc., has 4-lane divided road configuration. Further, only SH-19 (Tiruppur- Avinashi Road) and SH-37 (Tiruppur-Dharapuram Road) have a 4-lane divided configuration throughout the LPA. The details of the regional roads within the Tiruppur LPA are presented in Table 1.

Table 54 National Highways

SNO.	CATEGORY	NAME	ORIGIN & TERMINATION	CONNECTING MAJOR SETTLEMENTS WITHIN
1	National Highways	NH-81	Coimbatore to chidambaram	Palladam, Pongalur, Avinashipalayam, Kangeyam & Vellakoil
2		NH-181	Avinashi to Avanashipalaiyam	Avinashi, Chettipalayam & Avanashipalayam
3		NH-544	Cochin to salem via coimbatore	Avinashi,perumanallur

Table 55 State highways

SNO.	NAME	ORIGIN & TERMINATION	CONNECTING MAJOR SETTLEMENTS WITHIN LPA
4	SH-19	Avinashi to Pollachi	Avinashi, Tiruppur &
5	SH-19A	Tiruppur to Vijayamangalam	Tiruppur & Uthukuli
6	SH-37	Tiruppur to Mettur	Tiruppur, Avanashipalayam
7	SH-80	Avinashi to Mettupalayam	Avinashi
8	SH-81	Kangeyam to Gobichettipalayam	Kangeyam, Padiyur, Uthukuli, Chengappalli &
9	SH-87	Palladam to Udumalpet	Palladam
10	SH-163	Palladam to Coimbatore	Palladam
11	SH-166	Avinashi to Palladam	Avinashi, Mangalam & Palladam
12	SH-165	Annur to Kamanaikenpalayam	Samalapuram,
13	SH-169	Tiruppur to Somanur	Tiruppur & Mangalam
14	SH-171	Palladam to Karappalayam	Palladam
15	SH-172	Tiruppur to Padiyur	Tiruppur, Nallur & Padiyur

SNO.	NAME	ORIGIN & TERMINATION	CONNECTING MAJOR SETTLEMENTS WITHIN LPA
16	SH-174A	Karappalayam to Dharapuram	NA
17	SH-196	Tiruppur to Perundurai	Tiruppur, Chettipalayam,

SOURCE – CMP for Tiruppur City Municipal Corporation

Some of the Major District Roads within the Tiruppur LPA are MDR-155 (Koduvai-Kattampatty), MDR- 611 (Koduvai-Nachipalayam), MDR-764 (Avinashi-Puliampatti), MDR-875 (Veerapandi-Ugayanur), MDR-1102 (Vavipalayam-Uthukuli), MDR-1103 (Andipalayam-Attaiyampalayam) & MDR-1038 (Thirumuruganpoondi-Nallur). Some photographs of the major regional roads are presented in Figure 1.

8.2 ROAD INVENTORY

8.2.1 Road Length

The appreciation of road network characteristics is important to assess the existing lane configuration, capacity of the roads, constraints, if any and assess the potential for improvement / up gradation to cater to the existing and projected traffic. The study area for Road Inventory analysis consists of MC and Rest of MC. The area-wise details of road network inventory are presented in Table 62.

Table 56 Details of Road Network Inventory Survey

NO.	ADMINISTRATIVE BLOCK NAME	AREA (SQ. KM)	LENGTH (KM)
1	MC	159.38	1006.1
2	Rest of MC	889.62	1581.6
	Total (LPA)	1049	2587.7

SOURCE – CMP for Tiruppur City Municipal Corporation

8.2.2 Road Classification

The road network is classified into Highways, Arterial, Sub-Arterial, Collector and Local roads.

About 2588 km of road network is covered as part of road inventory survey. The broad details of the same are provided in Table 63.

Table 57 Details of Classification of Roads by Type

NO.	ROAD CLASSIFICATION	MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	National Highways	0.2	0.0%	85.3	5.4%
2	State Highways	-	-	184.2	11.6%
3	Major District Road	3.7	0.4%	92.9	5.9%
4	Other Roads[1]	16.4	1.6%	1204.6	76.2%
5	Arterial[2] and Sub Arterial[3] Road	108.2	10.8%	0.8	0.1%
6	Collector Roads	206.2	20.5%	3.8	0.2%
7	Local Roads[4]	671.4	66.7%	10.1	0.6%
	Total Road Length	1006.1	100%	1581.6	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

8.2.3 Right of Way (RoW)

A right of way is the land reserved for road formation including utilities. For the inventory survey, the spacing between building lines is considered as RoW, whereas rural road spacing between tree lines is considered as RoW. The distribution of road length with respect to RoW based on road inventory survey is presented in Table 64.

Table 58 Distribution of Road Length by Right of Way

NO.	ROW (M)	MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	<7	371.2	36.9%	318.8	20.2%
2	7 to 10	472.0	46.9%	777.2	49.1%
3	10 to 20	152.5	15.2%	399.0	25.2%
4	20 to 40	10.4	1.0%	54.7	3.5%
6	>40	-	0.0%	32.0	2.0%
Total Road Length		1006.1	100%	1581.6	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

About 15% of the roads in the study area have RoW of 10 to 20 metres followed by 47% of the roads with RoW of 7 to 10 metres in MC.

Roads with RoW more than 40 metres are not observed in MC and observed to be very minimal in Rest of study areas.Carriageway Width

Distribution of road length by carriageway is presented in Table 65.

Table 59 Distribution of Road Length by Carriageway

NO.	LANE CONFIGURATION	MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	Single Lane	293.5	29.2%	730.9	46.2%
2	Intermediate Lane	235.7	23.4%	107.1	6.8%

3	Two Lane	434.0	43.1%	665.8	42.1%
4	Three Lane	3.9	0.4%	-	-
5	Four Lane	39.1	3.9%	50.0	3.2%
6	Six Lane and Above	-	-	27.8	1.8%
Total Road Length		1006.1	100%	1581.6	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

Two lane constitutes to around 43% of the total roads in MC followed by single lane road which is around 29%.

The distribution of road length by type of carriageway is presented in Table 66.

Table 60 Distribution of Road Length by Type of Carriageway

NO.	LANE CONFIGURATION	MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	Divided	42.3	4.2%	78.6	5%
2	Un-Divided	963.8	95.8%	1503.0	95%
Total Road Length		1006.1	100%	1581.6	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

Percentage of divided roads is 4.2% and 5% respectively in MC & Rest of study area.

8.2.4 Encroachments

The percentage encroachment of roads on both sides with respect to the width along the road is presented in Table 67 and Table 68 represents the type and length of encroachment.

Table 61 Distribution of Road Length by Encroachment on Roads

NO.	LANE CONFIGURATION	MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH

1	Encroached	273.2	27.2%	45.5	2.9%
2	Free of Encroachment	732.9	72.8%	1536.2	97.1%
	Total Road Length	1006.1	100%	1581.6	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

Table 62 Distribution of Road Length by Encroachment Type in MC

NO.	ENCROACHMENT TYPE	LENGTH IN KM	% OF ROAD LENGTH
1	Shops	1.5	0.5%
2	On Street Parking	245.4	89.8%
3	Auto/Taxi Stand	0.4	0.1%
4	Utilities	14.1	5.2%
5	On Street Parking with Auto/Taxi Stand	0.8	0.3%
6	On Street Parking with Shops	5.3	1.9%
7	On Street Parking with Utilities	5.0	1.8%
8	Shops and Utilities	0.4	0.1%
9	Shops and Auto Stand	0.0	0.0%
10	On Street Parking with Shops and Utilities	0.3	0.1%
11	Combination of Above	0.2	0.1%
Total Road Length		273.2	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

Note: Only the roads which are encroached are considered for this Analysis.

It is observed that about 89.8% of the encroachment is because of On-street parking.

8.2.5 Pavement Type & Condition

Distribution of road length by type of pavement surface is presented in Table 63.

About 83.6% of the roads in the study area are bituminous in nature.

Share of bituminous roads in Rest of study area is around 92.5% and only 7% is of water bound macadam and paver blocks.

Analysis of the pavement condition expressed in terms of surface cracking, rutting, undulation/bumps, potholes, and patches etc. The distribution of road length by condition of pavement is presented in Table 64.

Table 63 Distribution of Road Length by Type of Pavement

NO.	LANE CONFIGURATION	MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	Bituminous	840.8	83.6%	1463.3	92.5%
2	Cement Concrete	20.3	2.0%	8.1	0.5%
3	Others (Water Bound Macadam, Paver Blocks and Mud Roads)	145.0	14.4%	110.2	7.0%
Total Road Length		1006.1	100%	1581.6	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

Table 64 Distribution of Road Length by Pavement Condition

NO.	LANE CONFIGURATION	MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	Good	238.3	23.7%	1038.8	65.7%
2	Fair	350.7	34.9%	403.7	25.5%
3	Poor	417.2	41.5%	139.2	8.8%
Total Road Length		1006.1	100%	1581.6	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

Pavement condition survey reveals that about 23.7% of roads in the study area are in good condition and 41.5% of the roads in the study area are in poor condition.

Availability of Footpath

The details of availability of footpath are presented in table below.

Table 65 Distribution on Availability of Footpath

NO.	LANE CONFIGURATION	MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	Both Sides	1.5	0.2%	0.7	0.1%
2	One Side	0.3	0.1%	-	-
3	Not Available	633.1	99.7%	1262.2	99.9%
Total Road Length		634.9	100%	1262.9	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

Availability of Footpath reveals that about 0.3% of roads only have footpaths in the study area

On-Street Parking

Significant On-street parking reduces the effective carrying capacity of the road network . Percentage of road length where on-street parking is observed is presented in table below..

Table 66 Distribution of Road Length by Occurrence of Significant On Street Parking

LANE NO. CONFIGURATION		MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	Present	152.8	15.2%	17.0	1.1%
2	Not Present	853.3	84.8%	1564.6	98.9%
Total Road Length		1006.1	100%	1581.6	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

Road Markings

The distribution of road length by availability of road markings is presented in table below.

Table 67 Distribution of Road Length by Condition of Road Markings in MC

NO.	ROAD MARKINGS	LANE MARKING		CENTER LINE MARKING		PAVEMENT EDGE	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	Good	26.2	2.6%	35.7	3.5%	29.0	2.9%
2	Fair	30.8	3.1%	57.0	5.7%	37.4	3.7%
3	Poor	23.0	2.3%	32.0	3.2%	44.4	4.4%
4	No Road Markings	926.1	92.1%	881.5	87.6%	895.3	89.0%
Total Road Length		1006.1	100%	1006.1	100%	1006.1	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

It is observed that road markings are not available on most of the roads. And roads on which the road markings available are also not in good condition, only around 2.6% of the roads have road markings in good condition.

8.2.6 Signage's

Inventory on availability and condition of sign boards shows that they are not available for 96.6% of road length in the study area. Installation of required sign boards will help in proper guidance of the road users. The distribution of road length by condition of signboards is presented in table below.

Table 68 Distribution of Road Length by Condition of Sign Boards

NO.	LANE CONFIGURATION	MC		REST OF MC	
		LENGTH IN KM	% OF ROAD LENGTH	LENGTH IN KM	% OF ROAD LENGTH
1	Good	14.0	1.4%	136.2	8.6%
2	Fair	8.2	0.8%	82.7	5.2%
3	Poor	11.9	1.2%	20.7	1.3%
4	No Sign Boards	972.0	96.6%	1342.0	84.8%
Total Road Length		1006.1	100%	1581.6	100%

SOURCE – CMP for Tiruppur City Municipal Corporation

8.3 RAILWAY

Within the Tiruppur District, the Indian Railways has 2 rail lines (along east-west axis) providing rail connectivity; one line passes through the Tiruppur LPA while the other passes through Udumalaipettai sub-district. There are 4 railway stations within the LPA i.e., 1 major (Tiruppur) and 3 minor (Uthukuli, Koolipalayam and Vanjipalayam). Since, Tiruppur Railway Station is the only major station in the LPA, nearby settlements are dependent on it for long distance rail connectivity. Presently, Tiruppur Railway Station has 2 platforms and falls under Chennai-Palakkad broad gauge line which is completely electrified. The nearest 2 junctions are Erode (east) and Irugur (west).

Presently, only at Tiruppur and Uthukuli Railway Stations, passenger and express train services are stopping. Post Covid-19, passenger train service at Vanjipalayam Railway Station has been suspended. Further, at Koolipalayam Railway Station, none of the passenger or goods train services are halting but rarely during congestion situations, goods trains halt at this station. Details of the rail services in LPA are presented in Table and photographs of the railway stations are presented in figure.

Table 69 Railway stations

NO.	RAILWAY STATION	TRAINS			
		PASSENGER	EXP. DAILY	EXP. WEEKLY	TOTAL
1	Tiruppur	05	21	38	64
2	Uthukuli	10	03	-	13
3	Vanjipalayam	08	-	-	08
4	Koolipalayam	-	-	-	-

SOURCE – CMP for Tiruppur City Municipal Corporation

8.4 AIR

The nearest airport to the Tiruppur LPA is the Coimbatore International Airport situated about 45 km from the Tiruppur city and shown in Figure 6. The connectivity from the LPA to the airport is through the two highways i.e., NH-544 and NH-81. Coimbatore International Airport is the 19th busiest airport in the country and has handled about 30 lakh passengers in 2018-19, which is more than its handling capacity of 20 lakh passengers. The cargo handled in 2017-18 was about 10,500 tonnes which is less than its handling capacity i.e., 36,500 tones.

8.5 PORT

A significant share of the industrial goods manufactured in the Tiruppur LPA is exported domestically and internationally through various ports situated within and other states. The nearest port to the region is the Kochi Port (240 km), followed by Tuticorin Port (330 km) and Chennai Port (465 km). As per secondary data, major share of goods is exported from Tuticorin Port and the least are exported from Chennai Port.

8.6 ANALYSIS OF TRAFFIC VOLUME COUNT AT OUTER CORDON LOCATIONS

Traffic Intensity

Classified traffic volume counts are conducted at 15 outer cordon locations. Based on the survey results, it is observed that about 2.81 lakh

vehicles enter and leave the study area every day. The daily traffic at the cordon locations is presented in the below.

Table 70 Daily Traffic at Outer Cordon Locations

NO.	ROAD/ LOCATION ID	TOTAL VEHICLES	PCUS	SHARE %
1	Chengappalli (Gobi-Kangeyam Road) (L1)	20,222	17,411	7.2%
2	Nadupatti (Uthukuli-Vijayamangalam Road) (L2)	11,716	10,627	4.2%
3	Padiyur (Tiruppur-Kangeyam Road) (L3)	19,511	20,050	6.9%
4	Kadaiyur (NH81) (Nagapatnam-Coimbatore Highway) (L4)	18,245	29,175	6.5%
5	Koduvai Tiruppur-Dharapuram Road) (L5)	16,462	20,019	5.9%
6	Otthakadai (Palladam-Dharapuram Road) (L6)	10,753	13,682	3.8%
7	Jallipatti (Palladam-Udumalpet Road) (L7)	11,966	12,109	4.3%
8	Kamanaikenpalayam (Palladam-Pollachi Road) (L8)	14,131	16,852	5.0%
9	Karadivavi (Palladam-Cochin Frontier Road) (L9)	9,884	11,675	3.5%
10	Karanampettai (NH81) (Palladam-Coimbatore Road) (L10)	40,003	53,939	14.2%
11	Samalapuram (Somanur Road) (L11)	31,864	28,405	11.3%
12	Avinashi (Avinashi-Mangalam Road) (L12)	22,187	17,456	7.9%

13	Sundakkampalayam (Avinashi-Mettupalayam Road) (L13)	18,439	17,325	6.6%
14	Avinashi Kurumbalayam (Sevur Road) (L14)	22,414	15,354	8.0%
15	Vallipuram (Perumanallur-Kunnathur Road) (L15) Total	13,511 2,81,308	10,266 2,94,345	4.8% 100%

SOURCE – CMP for Tiruppur City Municipal Corporation

Among all cordon locations, highest traffic volume of about 40,003 vehicles are observed on Karanampettai (Palladam-Coimbatore Road) followed by Samalapuram (Somanur Road) with a traffic volume of 31,864 vehicles.

The least traffic is observed on Karadivavi (Palladam-Cochin Frontier Road) as the road is passing through few settlements and carries only local traffic.

Traffic Composition

Composition of traffic considerably varies among the roads depending on location. Goods traffic share is observed to be high on national highways whereas passenger traffic share is high on other roads. The road-wise traffic composition at cordon locations is presented in the 70. Average traffic composition on cordon locations is presented in 71.

Table 71 Composition of Traffic at Outer Cordon Locations

NO	ROAD/ LOCATION	PRIVATE MODES		IPT	BUS	GOODS VEHICLE	CYCLE	OTHER MODES
		TWO WHEELER	CAR					
1	L1	60.30%	20.80%	0.50%	1.20%	16.10%	0.90%	0.20%
2	L2	62.40%	15.40%	0.60%	5.10%	15.90%	0.30%	0.30%
3	L3	48.80%	30.50%	1.00%	4.20%	15.10%	0.20%	0.30%
4	L4	27.30%	40.00%	0.40%	3.70%	28.50%	0.00%	0.20%
5	L5	37.90%	36.50%	0.70%	7.80%	16.70%	0.20%	0.30%

6	L6	33.60%	40.50%	0.40%	7.10%	18.10%	0.10%	0.20%
7	L7	49.10%	29.50%	0.30%	2.80%	18.00%	0.00%	0.30%
8	L8	46.20%	27.30%	1.20%	3.20%	21.50%	0.20%	0.40%
9	L9	52.80%	18.80%	1.30%	1.00%	25.10%	0.70%	0.40%
10	L10	37.70%	36.80%	0.60%	4.60%	20.00%	0.10%	0.30%
11	L11	64.30%	13.50%	2.40%	1.40%	17.40%	0.90%	0.20%
12	L12	60.40%	22.60%	1.30%	0.60%	14.10%	0.70%	0.20%
13	L13	56.40%	24.50%	0.70%	3.50%	14.50%	0.30%	0.10%
14	L14	70.30%	14.60%	0.80%	3.40%	10.40%	0.30%	0.20%
15	L15	64.50%	20.60%	0.70%	3.20%	10.60%	0.10%	0.30%
Average Share (%)		**51.70%**	**26.10%**	**0.90%**	**3.40%**	**17.30%**	**0.40%**	**0.20%**

SOURCE – CMP for Tiruppur City Municipal Corporation

The share of two wheelers is high on all the roads as these locations are on periphery of urban areas which basically indicate local trips and this is observed on Avinashi Kurumbalayam (Sevur Road) (L14), Vallipuram (Perumanallur-Kunnathur Road) (L15) and Samalapuram (Somanur Road) (L11)

The share of goods vehicles is considerably high on Kadaiyur (NH81) (Nagapatnam- Coimbatore Highway) (L4), Karadivavi (Palladam-Cochin Frontier Road) (L9) and Karanampettai (NH81) (Palladam-Coimbatore Road) (L10) compared to other roads.

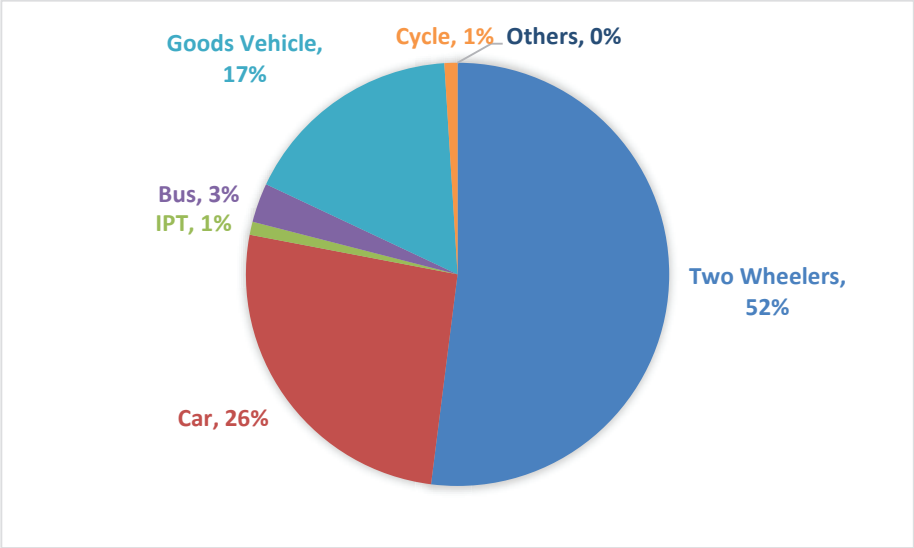


Figure 25 Average Traffic Composition at Cordon Locations

Traffic Temporal Variation

Temporal variation of traffic implies hourly variation of traffic over entire survey period. This variation is important for transport system planning. Table 16 presents peak hour traffic and its share in the daily traffic at outer cordon locations.

Table 72 Peak Hour Traffic at Outer Cordon Locations

NO	ROAD/LOCATION	PEAK HOUR	PEAK HOUR PCUS	PEAK HOUR SHARE
1	Chengappalli (Gobi-Kangeyam Road) (L1)	08.15-09.15	1212	7.00%
2	Nadupatti (Uthukuli-Vijayamangalam Road) (L2)	16.15-17.15	763	7.20%
3	Padiyur (Tiruppur-Kangeyam Road) (L3)	19.30-20.30	1178	5.90%
4	Kadaiyur (NH81) (Nagapatnam-Coimbatore	14.45-15.45	1759	6.00%

NO	ROAD/LOCATION	PEAK HOUR	PEAK HOUR PCUS	PEAK HOUR SHARE
	Highway) (L4)			
5	Koduvai Tiruppur-Dharapuram Road) (L5)	16.15-17.15	1104	5.50%
6	Otthakadai (Palladam-Dharapuram Road) (L6)	15.30-16.30	809	5.90%
7	Jallipatti (Palladam-Udumalpet Road) (L7)	17.15-18.15	842	7.00%
8	Kamanaikenpalayam (Palladam-Pollachi Road) (L8)	17.00-18.00	1183	7.00%
9	Karadivavi (Palladam-Cochin Frontier Road) (L9)	17.15-18.15	821	7.00%
10	Karanampettai (NH81) (Palladam-Coimbatore Road) (L10)	16.30-17.30	3117	5.80%
11	Samalapuram (Somanur Road) (L11)	09.15-10.15	1924	6.80%
12	Avinashi (Avinashi-Mangalam Road) (L12)	19.30-20.30	1229	7.00%
13	Sundakkampalayam (Avinashi-Mettupalayam Road) (L13)	18.00-19.00	1086	6.30%
14	Avinashi Kurumbalayam (Sevur Road) (L14)	08.15-09.15	1165	7.60%
15	Vallipuram (Perumanallur-Kunnathur Road) (L15)	08.30-09.30	802	7.80%

SOURCE – CMP for Tiruppur City Municipal Corporation

Percentage of traffic in peak hour ranges between 5.5% and 7.8% with an average of 6.6%.

8.7 ANALYSIS OF TRAFFIC VOLUME COUNT AT INNER CORDONS

Traffic Intensity

Classified traffic volume counts are conducted at 9 inner cordon locations. The daily traffic at these locations is presented in the Table 17.

Table 73 Daily Traffic at Inner Cordon Locations

NO	ROAD/ LOCATION ID	TOTAL		SHARE
		VEHICLES	PCUS	%
1	Thirumuruganpoondi (NH 381) (Tiruppur-Avinashi Road) (L1)	73,706	51,490	21.20%
2	Kangeyampalayam Pirivu (PN Road) (L2)	52,868	30,350	15.20%
3	Vavipalayam (Vavipalayam Road) (L3)	10,529	5,719	3.00%
4	Sircar Periyapalayam (NH 381) (Tiruppur-Uthukuli Road) (L4)	31,657	25,683	9.10%
5	Pollikalapalayam (Dharapuram Main Road) (L5)	22,664	19,629	6.50%
6	Karuppa Goundampalayam Tiruppur-Palladam Road) (L6)	78,044	55,838	22.50%
7	Sulthanpettai (Mangalam Road) (L7)	14,828	8,179	4.30%
8	Kavilipalayam (Tiruppur-Vanjipalayam Road) (L8)	24,010	14,558	6.90%
9	Pudhupalayam (Kangeyam Road) (L9)	38,877	27,323	11.20%
	Total	**347,183**	**238,770**	**100%**

SOURCE – CMP for Tiruppur City Municipal Corporation

Around 3.47 lakh vehicles are entering and exiting the Tiruppur Municipal Corporation Area on a normal working day.

Among other cordon locations, highest traffic volume of 78,044 vehicles (55,838 PCUs) is observed on Karuppa Goundampalayam Tiruppur-Palladam Road) which is about 22.5% of total vehicles observed at all other cordon locations followed by Thirumuruganpoondi (NH 381) (Tiruppur-Avinashi Road) with traffic volume of 73,706 vehicles.

Traffic Composition

Composition of traffic considerably varied among the roads depending on the locations. The road-wise traffic composition at inner cordon locations is presented in Table 18. Average traffic composition on inner cordon locations is presented in the Figure 25.

Table 74 Composition of Traffic at Inner Cordon Locations

NO	LOCATION ID	PRIVATE MODES		IPT	BUS	GOODS VEHICLES	CYCLE	OTHER MODES
		TWO WHEELER	CAR					
1	L1	63.00%	25.40%	1.00%	1.90%	8.20%	0.30%	0.20%
2	L2	77.00%	12.20%	1.00%	1.50%	7.90%	0.30%	0.10%
3	L3	80.60%	8.10%	0.40%	1.00%	9.10%	0.70%	0.30%
4	L4	66.40%	14.10%	0.30%	2.60%	16.00%	0.30%	0.30%
5	L5	60.80%	23.60%	0.50%	4.60%	10.20%	0.10%	0.20%
6	L6	69.20%	15.80%	0.80%	2.00%	11.70%	0.30%	0.30%
7	L7	78.90%	8.70%	0.80%	1.90%	8.80%	0.80%	0.20%
8	L8	67.20%	21.90%	1.20%	0.60%	9.00%	0.10%	0.00%
9	L9	70.40%	16.70%	0.60%	2.00%	9.80%	0.20%	0.30%
Avergae Share		**69.00%**	**17.60%**	**0.80%**	**2.00%**	**10.10%**	**0.30%**	**0.20%**

SOURCE – CMP for Tiruppur City Municipal Corporation

On Sircar Periyapalayam (Tiruppur-Uthukuli Road) (L4), Tiruppur Avinashi Road (L1) and Karuppa Goundampalayam (Tiruppur-Palladam Road) (L6), Goods vehicles are observed to high as compared to other locations.

Traffic volume on Vavipalayam (Vavipalayam Road) (L3) and Sulthanpettai (Mangalam Road) (L7) is observed to be low.

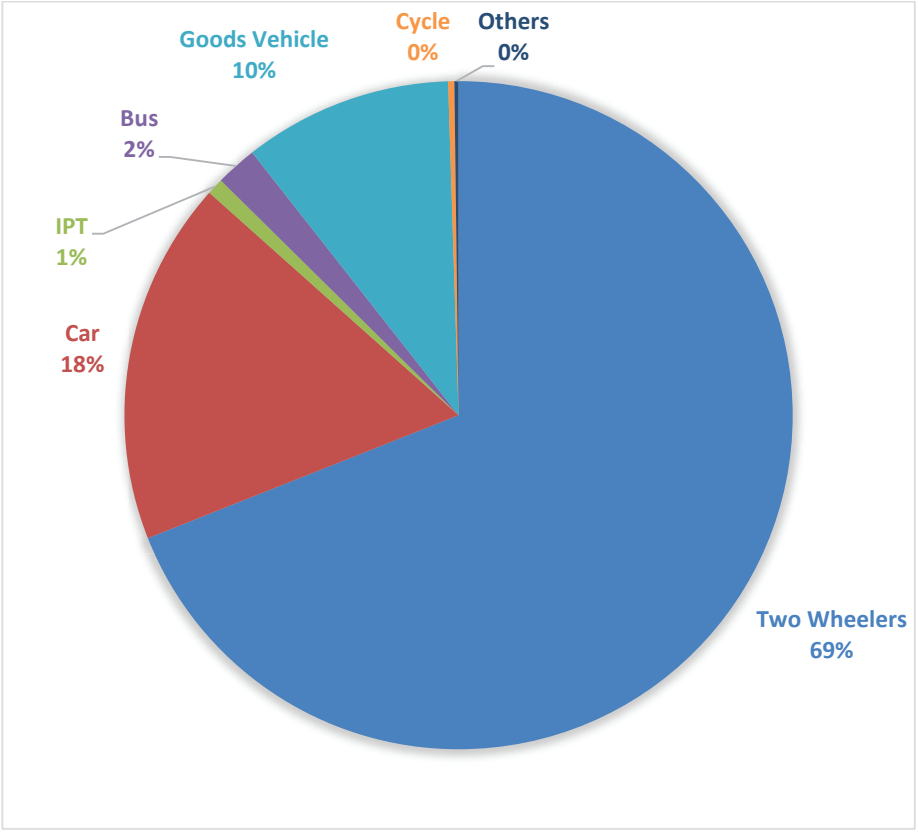


Figure 26 Average Traffic Composition at Inner Cordon Locations

The share of goods vehicles is considerably high on National Highways like Sircar Periyapalayam (NH 381) (Tiruppur-Uthukuli Road) and Karuppa Goundampalayam Tiruppur- Palladam Road) as compared to other roads.

Share of buses is minimal on Kavilipalayam (Tiruppur-Vanjipalayam Road) as these roads are not connecting any major settlements.

Traffic Temporal Variation

Temporal variation of traffic implies hourly variation of traffic over entire survey period. This variation is important for transport system planning.

Table 19 presents peak hour traffic and its share in the daily traffic at inner cordon locations.

Table 75 Peak Hour Traffic at Inner Cordon Locations

NO	ROAD/LOCATION NAME	PEAK HOUR	PEAK HOUR PCUS	PEAK HOUR SHARE
1	Thirumuruganpoondi (NH 381) (Tiruppur-Avinashi Road) (L1)	08.30-09.30	3495	6.80%
2	Kangeyampalayam Pirivu (PN Road) (L2)	08.30-09.30	2238	7.40%
3	Vavipalayam (Vavipalayam Road) (L3)	18.00-19.00	486	8.50%
4	Sircar Periyapalayam (NH 381) (Tiruppur-Uthukuli Road) (L4)	16.30-17.30	1777	6.90%
5	Pollikalapalayam (Dharapuram Main Road) (L5)	08.15-09.15	1276	6.50%
6	Karuppa Goundampalayam Tiruppur-Palladam Road) (L6)	11.30-12.30	3802	6.80%
7	Sulthanpettai (Mangalam Road) (L7)	09.15-10.15	700	8.60%
8	Kavilipalayam (Tiruppur-Vanjipalayam Road) (L8)	18.15-19.15	1117	7.70%
9	Pudhupalayam (Kangeyam Road) (L9)	08.45-09.45	2064	7.60%

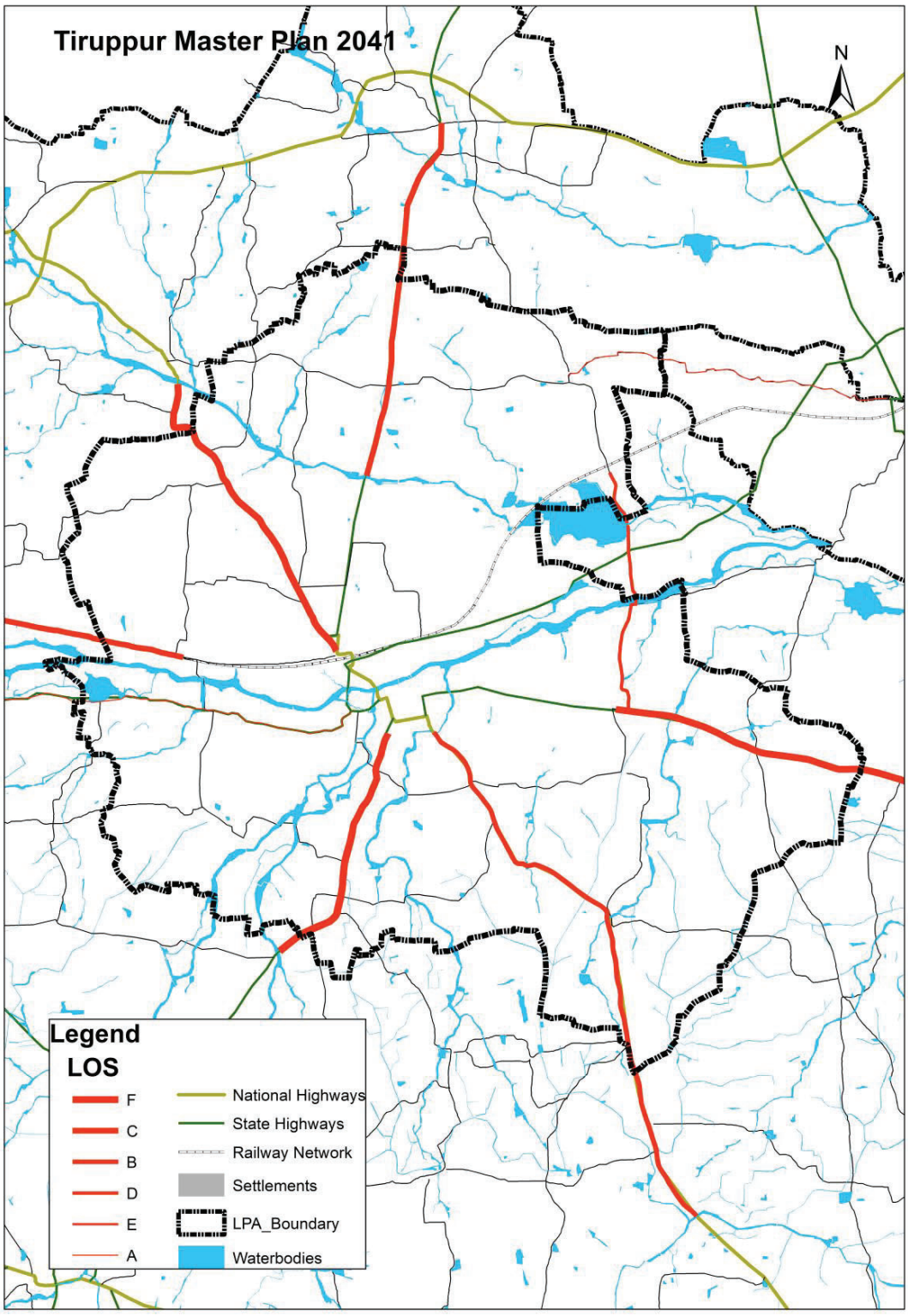
SOURCE – CMP for Tiruppur City Municipal Corporation

Percentage of traffic in peak hour ranges between 6.5% and 8.6% with an average of 7.4%.

8.8 LEVEL OF SERVICE

8.8.1 Inner Cordon

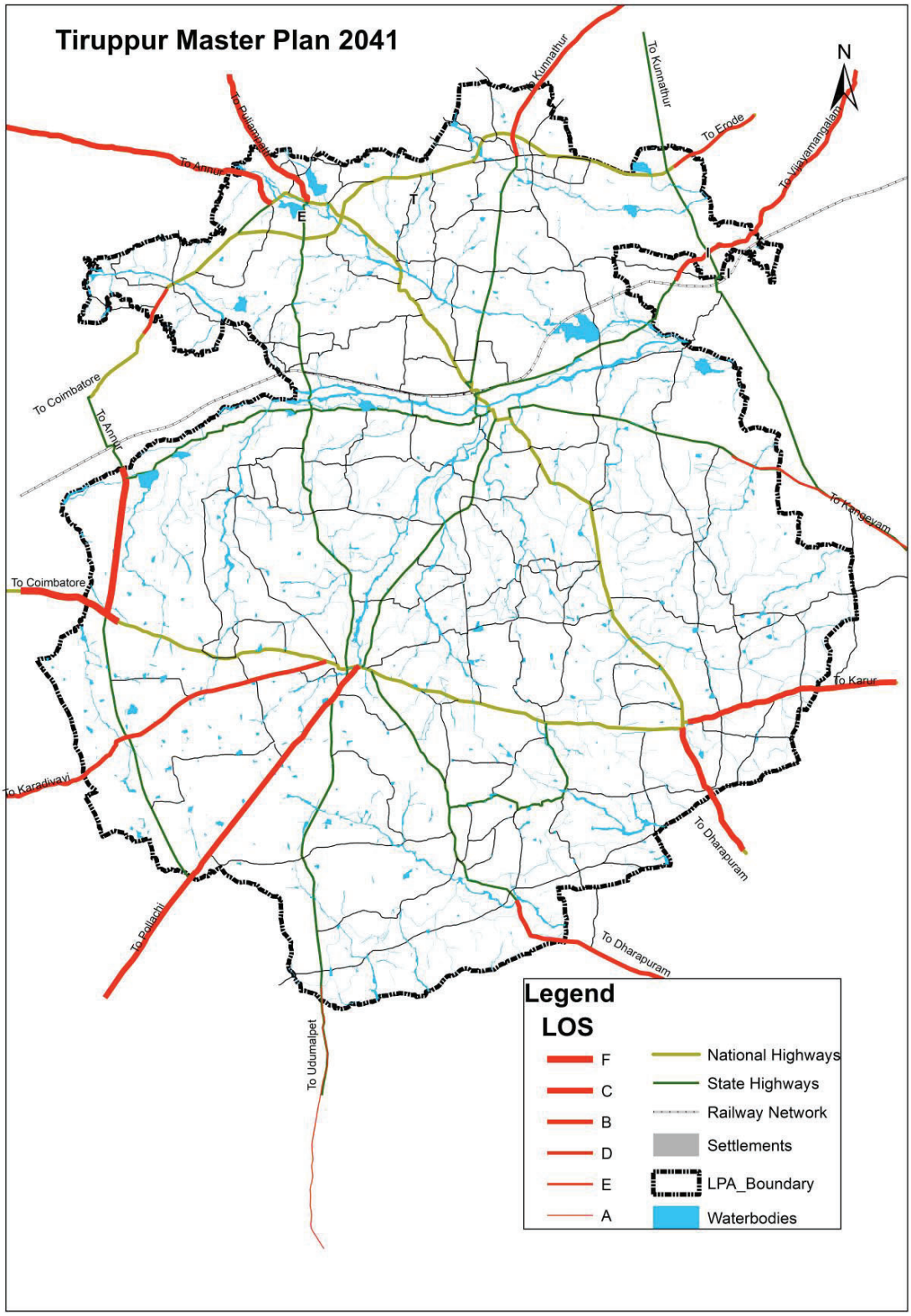
No.	Location	Volume	LOS
1	Thirumuruganpoondi (NH 381) (Tiruppur-Avinashi Road) (L1)	3495	F
2	Kangeyampalayam Pirivu (PN Road) (L2)	2238	E
3	Vavipalayam (Vavipalayam Road) (L3)	486	B
4	Sircar Periyapalayam (NH 381) (Tiruppur-Uthukuli Road) (L4)	1777	C
5	Pollikalapalayam (Dharapuram Main Road) (L5)	1276	D
6	Karuppa Goundampalayam Tiruppur-Palladam Road) (L6)	3802	F
7	Sulthanpettai (Mangalam Road) (L7)	700	B
8	Kavilipalayam (Tiruppur-Vanjipalayam Road) (L8)	1117	E
9	Pudhupalayam (Kangeyam Road) (L9)	2064	F



Map 47 Map showing Level of Service in Inner cordon roads

8.8.2 Outer Cordon

S.NO.	LOCATION	PCU	V/C	LOS
1	Chengappalli (Gobi-Kangeyam Road) (L1)	1212	0.81	D
2	Nadupatti (Uthukuli-Vijayamangalam Road) (L2)	763	0.64	B
3	Padiyur (Tiruppur-Kangeyam Road) (L3)	1178	0.98	E
4	Kadaiyur (NH81) (Nagapatnam-Coimbatore Highway) (L4)	1759	0.73	C
5	Koduvai (Tiruppur-Dharapuram Road) (L5)	1104	0.74	C
6	Otthakadai (Palladam-Dharapuram Road) (L6)	809	0.67	B
7	Jallipatti (Palladam-Udumalpet Road) (L7)	842	0.56	B
8	Kamanaikenpalayam (Palladam-Pollachi Road) (L8)	1183	0.79	C
9	Karadivavi (Palladam-Cochin Frontier Road) (L9)	821	0.68	B
10	Karanampettai (NH81) (Palladam-Coimbatore Road) (L10)	3117	1.30	F
11	Samalapuram (Somanur Road) (L11)	1924	1.28	F
12	Avinashi (Avinashi-Mangalam Road) (L12)	1229	0.82	D
13	Sundakkampalayam (Avinashi-Mettupalayam Road) (L13)	1086	0.72	C
14	Avinashi Kurumbalayam (Sevur Road) (L14)	1165	0.78	C
15	Vallipuram (Perumanallur-Kunnathur Road) (L15)	802	0.67	B



Map 48 Map showing Level of Service in Outer cordon roads

8.9 TRANSPORTATION

8.9.1 Intercity bus services

Tamil Nadu State Transport Corporation Ltd. (TNSTC) is the state-run bus service of Tamil Nadu having fleet of over 17,438 buses and operating over 10,532 routes with a total staff of 1.23 lakh employees. TNSTC runs various kinds of buses providing passengers mobility covering Intra-state and Inter-state.

TNSTC operates buses from Tiruppur to all major parts of the state from three bus terminals: Old Bus Stand, New Bus Stand, Kovil Vazhi and due to ongoing work in old bus stand,, few buses are operated temporarily from Universal theatre. Buses to Coimbatore, Salem, Erode, Karur, Trichy, etc, are plying at regular intervals from Tiruppur. Wide range of services is operated by TNSTC which includes Ordinary, Deluxe and Ultra Deluxe.

Figure 27 Tiruppur Corporation New Bus Stand

Private bus operators also play an important role in inter-city passenger movement. These buses provide connectivity to the major cities like Coimbatore, Salem, Erode etc. Sector wise intercity bus service details are presented in the Table 10.

Table 76 Sector wise inter-city Bus services

SECTOR NAME	TOTAL VEHICLE	TOTAL DAILY SCHEDULES
Erode	91	211
Palani	63	115
Salem	80	109
Udumalpet	43	126
Coimbatore	91	214
Pollachi	88	181
Total	456	956

SOURCE – CMP for Tiruppur City Municipal Corporation

8.9.2 City bus services

TNSTC is responsible for operating the bus service in the city and its suburbs. The fleet size of city bus is about 379. On an average, 1867 schedules are made by city bus. The city buses are operated from Tiruppur to various places (sectors) such as Palladam, Avinashi, Kangeyam, Somanur, Uthukuli, Perumanallur and Koduvai.

At present, Tiruppur has 1 bus depots near Kangeyam Cross Junction. Apart from these the other major bus stands are Old Bus Stand, New Bus Stand, Kovil Vazhi Bus Stand, Avinashi Bus Stand and Palladam Bus Stand.

Table 77 Sector wise city bus details

SECTOR NAME	TOTAL VEHICLE	TOTAL DAILY SCHEDULES
Palladam	67	267
Avinashi	74	520
Kangayam	83	223
Somanur	27	132
Uthukuli	23	106
Perumanallur	68	450
Koduvai	37	169
Total	**379**	**1867**

SOURCE – CMP for Tiruppur City Municipal Corporation

Based on reconnaissance survey, major traffic and transportation issues in the Tiruppur LPA have been identified. These issues are primarily associated to the prevailing road network including junctions, public transport services including IPT, pedestrian facilities along and across radials and junctions and freight/ goods traffic within the Tiruppur LPA. The identified issues have been summarized below.

8.10 KEY OBSERVATIONS

8.10.1 Lack of proper road network structure

The prevailing road network within the Tiruppur LPA lacks a hierarchy of road structure. Predominately, the road network in LPA consists of arterial, sub-arterial and local street network; collector roads are observed to be minimal. The transition from arterial/sub-arterial roads to local streets by the local and through traffic generates congestion at various locations within the LPA. The most predominant locations where the same can be observed are along Tiruppur-Avinashi Road, PN Road, Uthukali Road and Mangalam Road.

Non-Uniform RoW & Carriage way

Few locations along the major radials i.e. Kamaraj Road (SH-19), PN Road (SH-196), Mangalam Road (SH-169), Kangeyam Road (SH-172), Uthukuli Road (SH-19A) etc., have been identified to be having varying RoW and carriageway; resulting in reduction in lanes (from 4 to 2) for short road length sections and causing congestion at peak hours. This situation worsens with the prevailing encroachments in the form of parking and informal commercial activities. These locations are primarily located near the city core limits where the built-up density is high.

8.10.2 Limited & Inadequate north-south connectivity across rail & natural barriers

The north-south accessibility for local daily traffic in Tiruppur City Municipal Corporation is a major concern due to existence of limited and inadequate connections across the railway line and Noyyal River. Along the railway line there exist only one (1) major RoB, one (1) major RuB, few narrow RuB's (only for two-wheelers and light four-wheelers), and at-grade level crossing exists whereas along the Noyyal River three (3) major and few minor bridges exists. All the minor connections have narrow carriageway and are of degraded quality.

8.10.3 Poor geometric connection of junctions

Mostly the junctions along the major radials within the Tiruppur City Municipal Corporation and other major settlements like Samalapuram, Uthukuli, Perumanallur etc., have poor geometric design elements such as large open junctions (medians ending much before the junction), lack of

adequate turning radius, lack of dedicated turning lanes (for large junctions) etc; whereas, the junctions outside the settlement limits have been designed as per the various road and highways standards.

8.10.4 Lack of adequate pedestrian facilities

predominantly, all the major radial and settlement roads in the Tiruppur LPA lack footpath on both sides of the road except the Tiruppur-Avinashi Road (SH-19), Kamaraj Road (SH-19) and Dharapuram Road (SH-37) where about one (1) meter wide discontinuous footpath exists.

Primarily, these discontinuous road sections having footpath, exists over the utility drain along the road. Foot over bridge (FoB) exists only in one location near Tiruppur Railway Station but due to shorter road section, people prefer to cross the road at-grade.

8.10.5 On street parking of vehicles

Parking of private vehicles along the major roads (primarily near city and regional nodes) in the Tiruppur LPA is forcing the pedestrian to walk on the carriageway; compromising the pedestrian safety. Both short and long-haul parking durations have been observed. The major share of on-street parking within the Tiruppur City Municipal Corporation has been observed within 1-2 km radius from the Tiruppur Railway Station, Some of the roads where on-street parking prevails are Kamaraj Road (SH-19), Tiruppur-Avinashi Road (SH-19), PN Road (SH-196) and Dharapuram Road (SH-37).

8.10.6 Lack of transport infrastructures (bus shelters)

Tiruppur City Municipal Corporation lacks basic public transport infrastructure i.e. bus shelters, as only few locations were bus shelters are present; further, the existing ones within the city are of degraded quality. Most of the major settlements, also lack bus shelters and therefore, informal bus stops are witnessed across the Tiruppur LPA. Further, the existing shelters require relocation as per the urban standards i.e. 50-75 m away from the major junction.

8.10.7 Informal bus and IPT stops and stands

Due to absence of dedicated bus stops, informal bus and IPT stops have been identified, primarily on all the major radials and settlement along arterial roads; causing congestion at peak hours. Further, informal IPT stands have

been identified within all the major settlements of the Tiruppur LPA. Condition of Bus shelters is in either poor or the bus shelter is completely missing.

8.10.8 Lack of multimodal integration at terminal

The major issue with the Tiruppur Railway Station and bus terminals in the Tiruppur LPA is the lack of multi-modal integration. It has been observed that private car and IPT passengers are dropped/ picked outside the bus terminals on the immediate major roads; causing congestion. Further, informal IPT stands exist outside the bus terminals and are not integrated with the respective terminal.

Tiruppur Railway Station lacks dedicated private, bus and IPT lanes within its premises. The Old and New Bus Terminals which are under redevelopment are being implemented with these dedicated facilities. Also, many informal private bus parking along the roads are identified in Tiruppur (SH-19 & SH-196), Palladam (NH-81) and Avinashi (SH-80). These scattered locations primarily exist in Tiruppur LPA where the road space is wide (18-30 m) after the carriageway.

8.10.9 Moment of freight and goods vehicle within settlements

Primarily, freight movement prevails along all the radials and major settlement roads within the Tiruppur LPA. It is majorly due to the commerce, trade and industrial related activities prevailing in the study area.

Some of the freight generating traffic nodes and sub-regions (other than the various identified industrial cluster) within the urban cores of LPA are (i) Tiruppur Railway Station, (ii) Daily Vegetable Market (located on SH-19), (iii) Veerapandi, (iv) Muthalipalayam, (v) Perumanallur, (vi) Kozhipannai,

(vii) Chettipalayam etc.

Due to prevailing freight movement and lack of regional truck terminals in the settlements of Tiruppur LPA, various locations have been identified where on-street goods vehicle parking exists. These locations have been identified within the Tiruppur City Municipal Corporation, Avinashi, Palladam and along the major radials of the LPA. The parking of cargo vehicles hinders the local traffic movement within the settlements as these vehicles occupy a major share of road space which otherwise can be utilized for other facilities.

Outside the settlement core limits, large private land parcels have been identified where private off-street parking exists.

8.10.10 Poor road pavement quality road sections

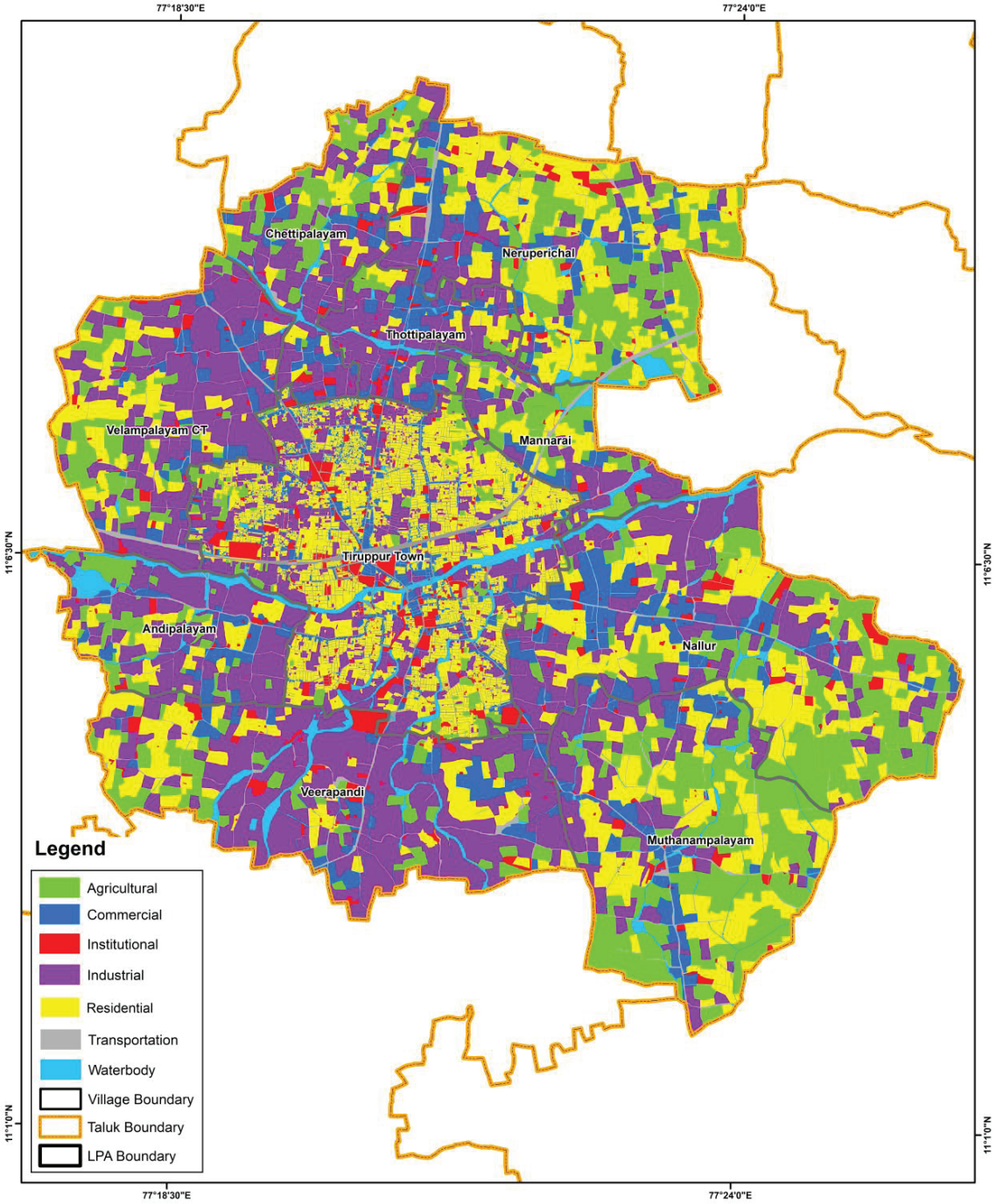
Predominantly, the road pavement within the Tiruppur LPA is of good quality but few road stretches (10-60 m) are identified within the Tiruppur City Municipal Corporation where degraded pavement quality exists. These small road stretches are primarily along Mangalam Road (SH-169), Tiruppur Municipal Park Road, Kangeyam Bypass Road (from Kamaraj Road) and Kangeyam Road (SH-172), Uthukali Road (SH-19A). The poor pavement quality is primarily due to movement of heavy cargo vehicles within the LPA and for few other locations, recently, utility based up-gradation work is under implementation.

09

LANDUSE

9 LANDUSE

9.1 EXISTING LANDUSE 2021, TIRUPPUR CORPORATION



Map 49 Tiruppur Existing Master Plan-2021 (Landuse)

Table 78 Existing Land Use vs URDPFI Standards

LANDUSE	EXISTING LANDUSE AREA IN 2021	PERCENTAGE OF LANDUSE TO TOTAL AREA IN 2021	INDUSTRIAL TOWN STANDARDS AS PER URDPFI
Residential	39.85	25.01%	20-25
Commercial	17.78	11.16%	3-4 %
Industrial	55.30	34.71%	30-35%
Institutional	5.98	3.75%	6-8%
Recreational	0.07	0.04%	12-15%
Transport	10.03	6.29%	10-12%
Waterbodies	7.00	4.39%	BALANCE
Agriculture	23.32	14.64%	

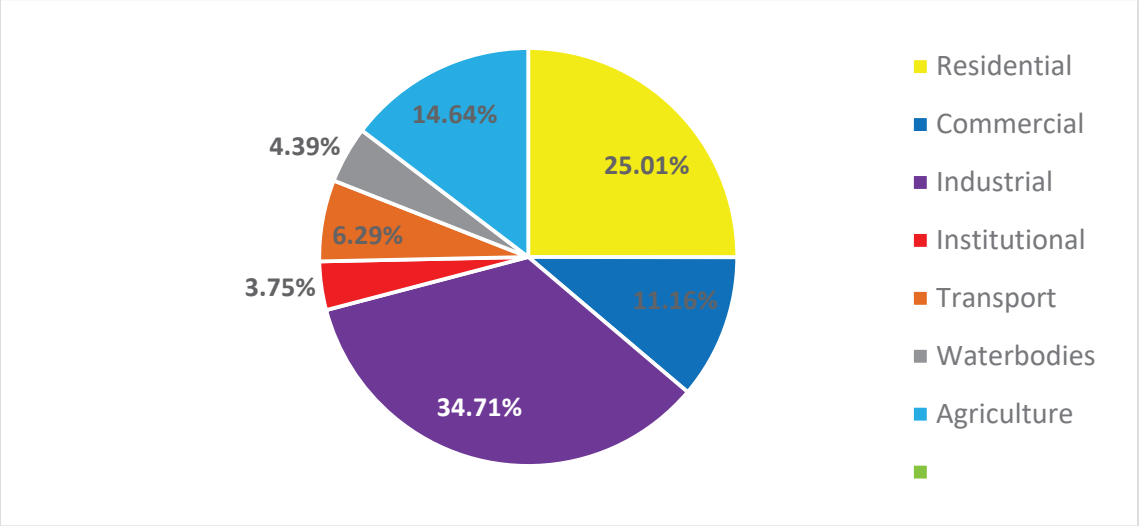
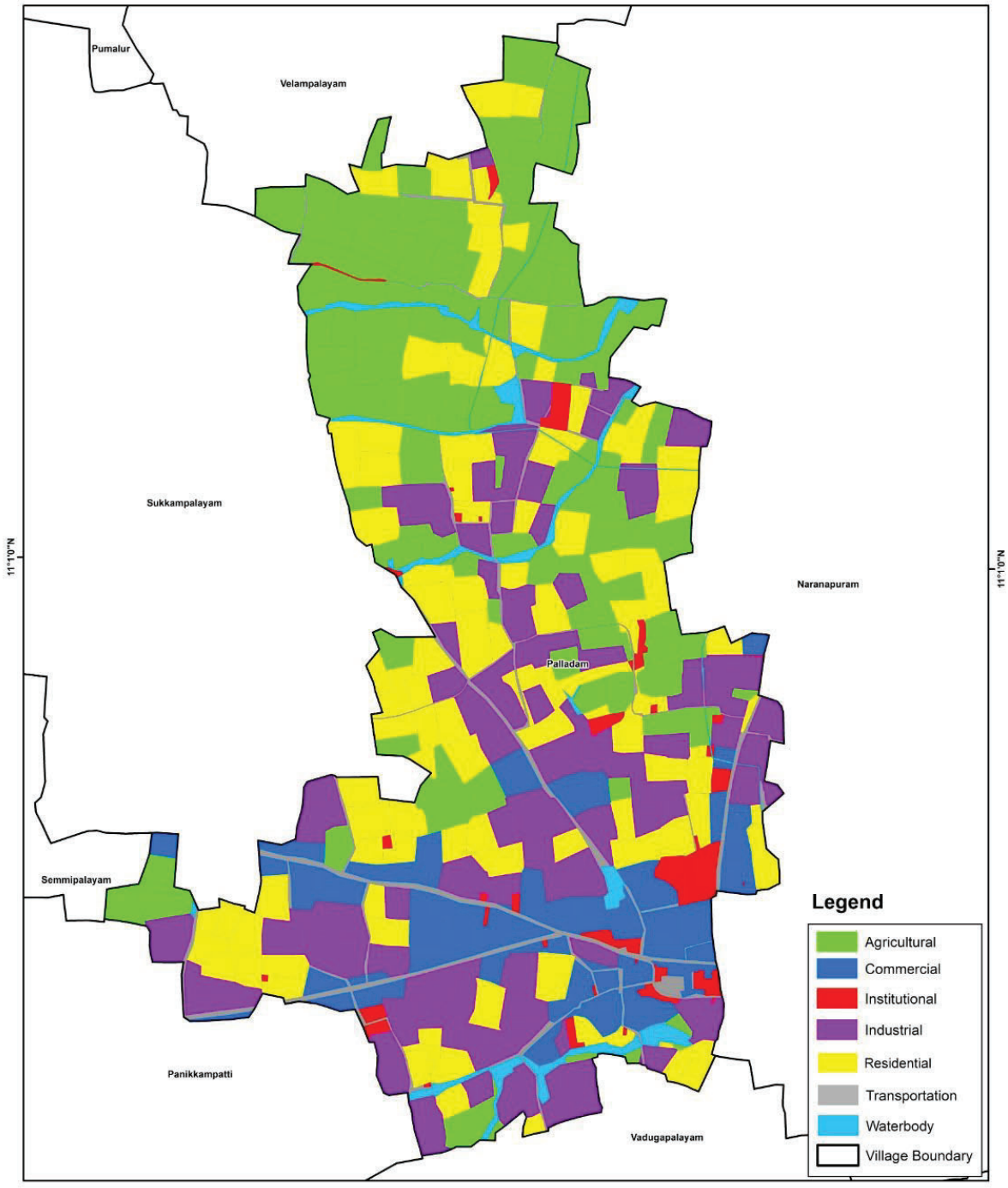


Figure 28 Existing Land Use-Palladam Municipality-2021



Map 50 Palladam Municipality Existing Landuse

Table 79 Existing Land Use vs URDPFI Standards

LANDUSE	EXISTING LANDUSE AREA IN 2021	PERCENTAGE OF LANDUSE TO TOTAL AREA IN 2021	URDPFI GUIDELINES
Residential	5.03	25.88%	45-50%
Commercial	2.21	11.36%	2-3%
Industrial	4.78	24.62%	8-10%
Institutional	0.46	2.37%	6-8%
Recreational	0.01	0.03%	12-14%
Transport	0.75	3.87%	10-12%
Waterbodies	0.58	3.00%	BALANCE
Agriculture	5.61	28.88%	

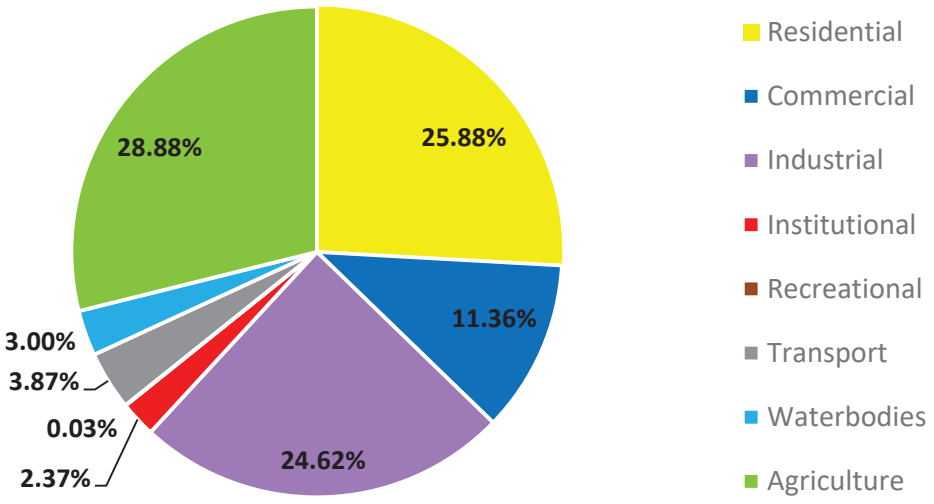


Figure 29 Existing Land Use-Thirumuruganpoondi Municipality-2021

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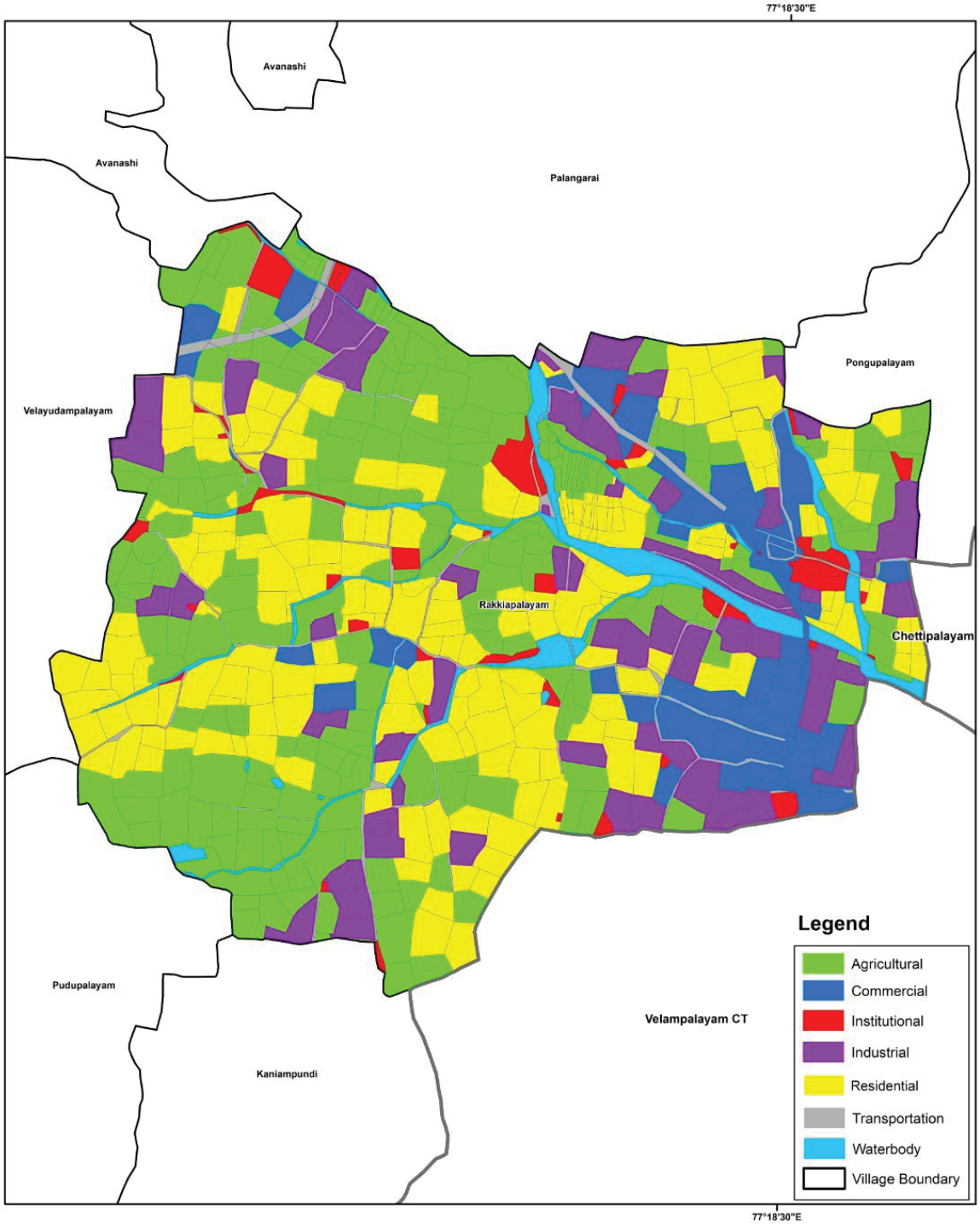


Map 51 Thirumuruganpoondi Municipality Existing Landuse

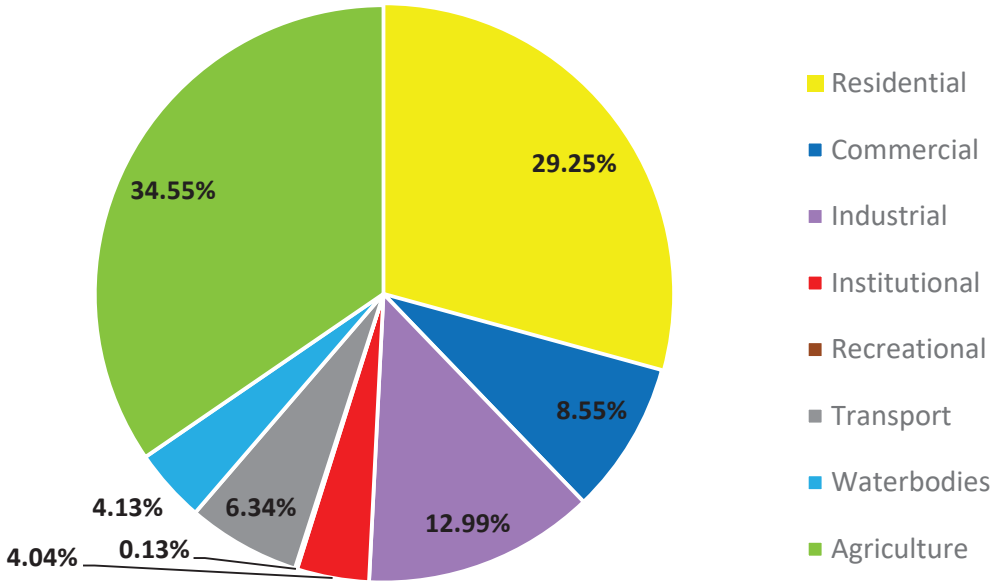
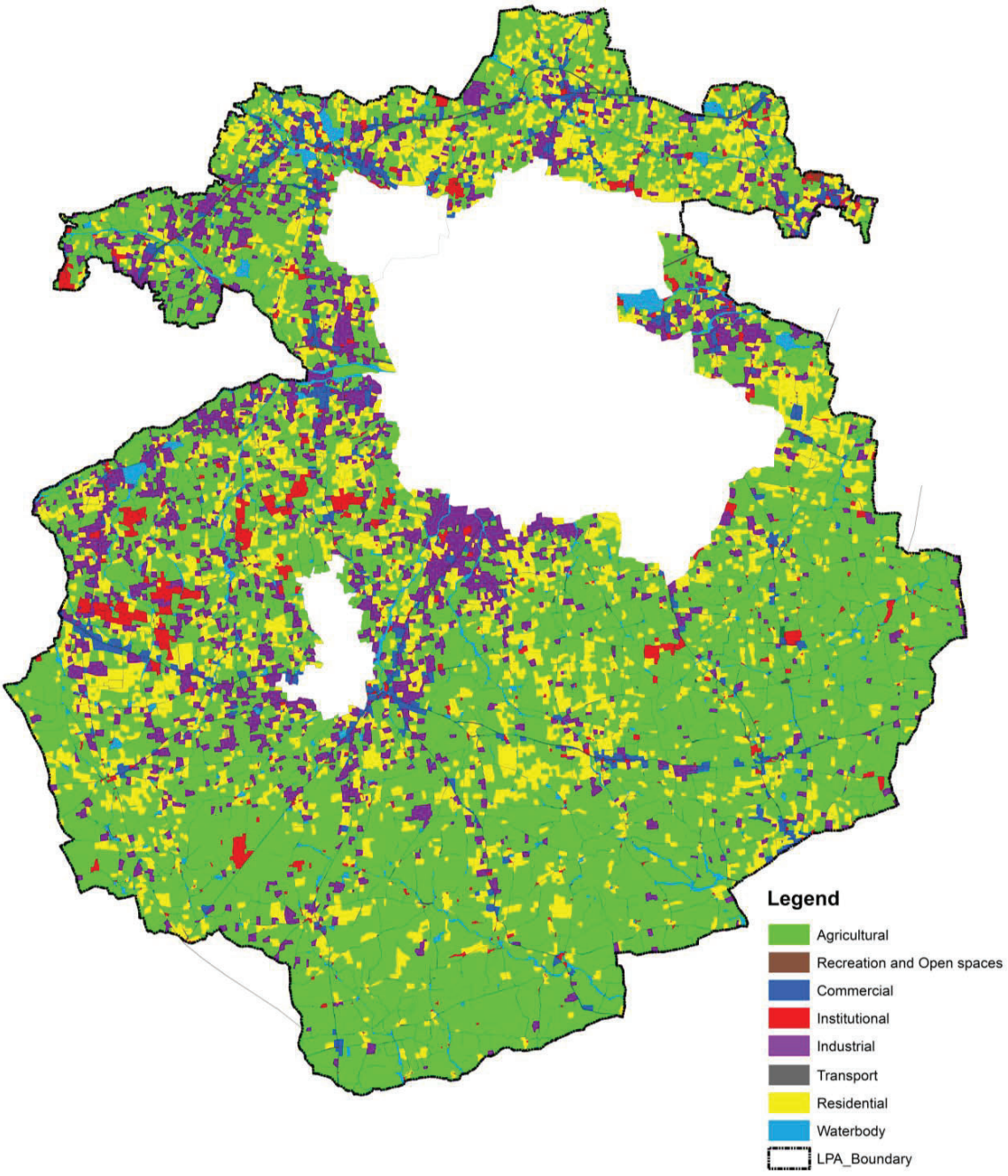


Figure 30 Existing Land Use-Rest of LPA

Table 80 Existing Land Use vs URDPFI Standards

LANDUSE	EXISTING LANDUSE AREA IN 2021	PERCENTAGE OF LANDUSE TO TOTAL AREA IN 2021	URDPFI GUIDELINES
Residential	4.24	29.25%	45-50%
Commercial	1.24	8.55%	2-3%
Industrial	1.88	12.99%	8-10%
Institutional	0.59	4.04%	6-8%
Recreational	0.02	0.13%	12-14%
Transport	0.92	6.34%	10-12%
Waterbodies	0.60	4.13%	BALANCE
Agriculture	5.01	34.55%	

9.2 EXISTING LANDUSE 2021, REST OF LPA



Map 52 Rest of LPA - Existing Landuse

Table 81 Existing Land Use

LANDUSE	EXISTING LANDUSE AREA IN 2021	PERCENTAGE OF LANDUSE TO TOTAL AREA IN 2021	PERCENTAGE OF LANDUSE TO DEVELOPED AREA IN 2021
Residential	160.54	19.15%	49.81%
Commercial	17.85	2.13%	5.54%
Industrial	90.98	10.85%	28.23%
Institutional	21.36	2.55%	6.63%
Transport	31.56	3.76%	9.79%
Waterbodies	28.43	3.39%	BALANCE
Agriculture	487.71	58.17%	

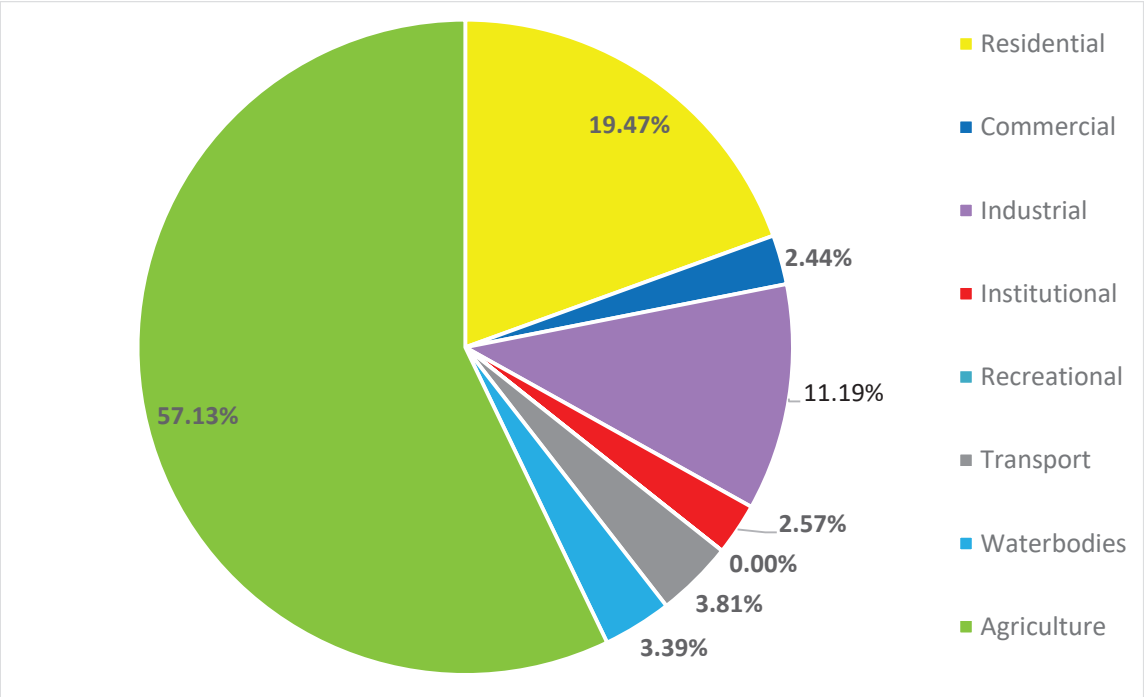


Figure 31 Existing Land Use-LPA

10

ENVIRONMENT

10 ENVIRONMENT

10.1 AIR QUALITY

The air quality in Tiruppur, like in many urban areas, is influenced by various factors such as vehicular emissions, industrial activities, construction, and meteorological conditions. Air quality is commonly measured using parameters like particulate matter (PM2.5 and PM10), nitrogen dioxide (NO2), sulfur dioxide (SO2), carbon monoxide (CO), and ozone (O3).

Tiruppur's air quality can vary throughout the year due to seasonal changes, local sources of pollution, and regional weather patterns. During certain periods, such as winter and dry seasons, air quality might deteriorate due to factors like increased emissions and atmospheric stability.

Efforts to monitor and improve air quality in Tiruppur may involve measures like implementing emission controls for industries and vehicles, promoting cleaner fuels, enhancing waste management practices, and establishing green spaces. Public awareness campaigns and community participation are also crucial in reducing pollution levels.

Local authorities and environmental agencies may carry out air quality assessments, provide real-time monitoring data, and issue advisories to inform residents about air quality conditions. The goal is to ensure that Tiruppur's air quality remains within acceptable limits to safeguard public health and the environment

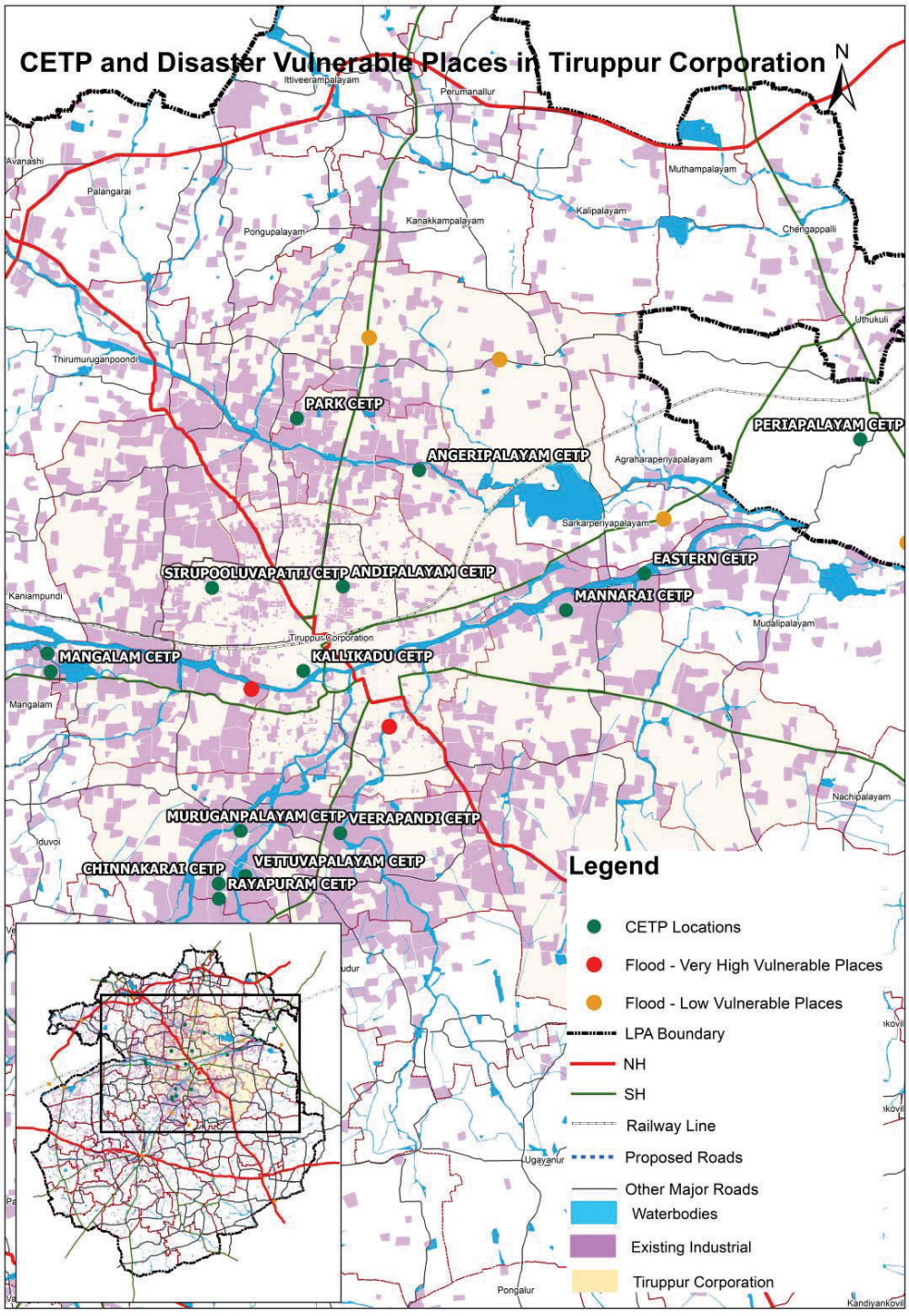
10.2 WATER QUALITY

Tiruppur North, Tiruppur South, Kangeyam, Avinashi and Uthukuli Taluks are coming under the jurisdiction of Tiruppur North office. There are 2251 (Red, Orange & Green Category) industries functioning within this office jurisdiction. 15 Common Effluent Treatment Plants (CETPs) with 322 member units are under operation and 92 dyeing / bleaching industries are under operation with Individual Effluent Treatment Plants (IETPs). All these CETPs and IETPs have provided Zero Liquid Discharge System (ZLDS). All these dyeing / bleaching units in an average generate 96 MLD of trade effluent. Out of the 96 MLD of trade effluent 98% of the effluent is recovered and reused in the dyeing and bleaching industries as permeate, condensate and brine. The remaining effluent 2% is evaporated in Agitated Thin film drier, a minimal

quantity of effluent is carried over along with the wet sludge and recovered salt. Sludge generated from the CETPs and IETPs, are transported to various cement industries for co processing. So far 96,535 T of sludge has been transported to cement industries for co processing. Mixed salt recovered from ATFD is stored in closed shed so far 44,335 T of mixed salt is stored in closed sheds within the premises of CETP's and IETPs. River Noyyal is flowing through Tiruppur. Noyyal River water quality is monitored on fortnightly basis by collecting water samples at five different locations of the river Noyyal. The average TDS level in River Noyyal water is between 1750 mg/l to 1973 mg/l.

Around 86.9 MLD of sewage generated from the habitations, commercial establishments, hospitals located in and around Tiruppur are discharged into River Noyyal. One Sewage Treatment Plant (STP) is operated with 15 MLD capacity at S.Periyapalayam, Tiruppur by New Tiruppur Area Development Corporation Ltd (NTADCL). Also, construction of 2 STPs of 36 MLD and 20 MLD capacity was under progress and expected to be completed within a year.

The disposal of sludge generated by the processing units in Tiruppur has for long been a contentious issue. Zero-liquid discharge (ZLD) is a water treatment process in which all wastewater is purified and recycled; therefore, leaving zero discharge at the end of the treatment cycle which has been involved with the treatment of industries in Tiruppur. ZLD is an advanced wastewater treatment method that includes ultrafiltration, reverse osmosis, evaporation/crystallization, and fractional electrode ionization.



Map 53 Existing CETPs, Tiruppur LPA

Table 82 CEPT – Common Effluent Treatment Plants details

S. NO.	NAME OF THE CETP	DPR QUANTITY (KLD)	PERMITTED QUANTITY (KLD)	WORKING PERCENTAGE
1	Andipalayam CETP	4500	2730	70%
2	Angeripalayam CETP	10000	9000	90%
3	Chinnakkarai CETP	8000	7200	90%
4	Eastern CETP	6000	4500	75%
5	Kallikadu CETP	3000	2700	90%
6	Kasipalayam CETP	4400	3520	80%
7	Mangalam CETP	3880	2716	70%
8	Mannarai CETP	4165	3749	90%
9	Park CETP	2500	2250	90%
10	Rayapuram CETP	5500	4950	90%
11	Sirupooluvapatti CETP	5000	4500	90%
12	S. Periyapalayam CETP	1200	180	15%
13	Tiruppur Murugampalayam CETP	10945	7013	75%
14	Veerapandi CETP	11954	10759	90%
15	Vettuvapalayam CETP	1300	195	15%
	Total	82344	65961	80%

SOURCE Tiruppur City Municipal Corporation

11

DISASTER MANAGEMENT

11 DISASTER MANAGEMENT

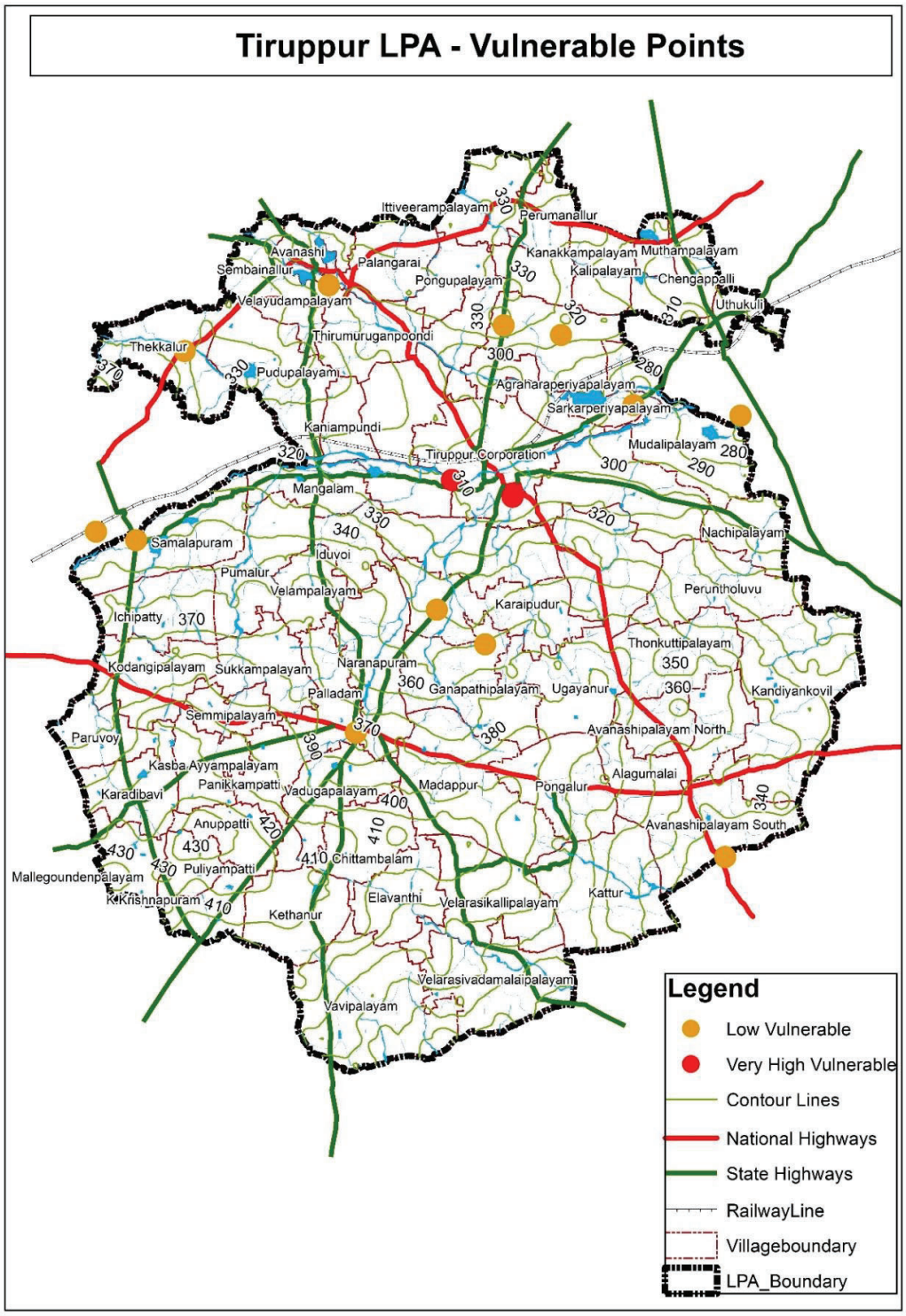
11.1 VULNERABLE AREAS

As per the Disaster Management Report available on the Tiruppur district's official website, the Local Planning Area (LPA) encompasses 11 identified vulnerable points in terms of disaster susceptibility. Among these points, two are categorized as "Very High Vulnerable," signifying their heightened susceptibility to various types of disasters. These highly vulnerable areas may be prone to natural calamities such as floods, landslides, or other adverse events due to their geographical and environmental characteristics.

Conversely, the remaining nine points are categorized as "Low Vulnerable" to disasters, suggesting a relatively lower likelihood of being affected by severe calamities. These points may possess more favorable geographical features or better-prepared infrastructure, making them less susceptible to potential disasters.

The presence of both highly vulnerable and less vulnerable points underscores the diverse nature of disaster risks within the Tiruppur district's LPA. The categorization highlights the need for targeted disaster management strategies, preparedness plans, and infrastructure enhancements in the highly vulnerable areas. Equally, the low vulnerable points should not be neglected, as even minor events can have significant consequences.

By addressing the vulnerabilities identified in the Disaster Management Report, the district authorities can implement measures to mitigate risks, enhance community preparedness, and bolster infrastructure resilience. A comprehensive approach that considers the specific characteristics of each vulnerable point is essential for fostering disaster resilience and safeguarding the well-being of the residents within Tiruppur's Local Planning Area.



Map 54 Vulnerable Locations, Tiruppur LPA

12

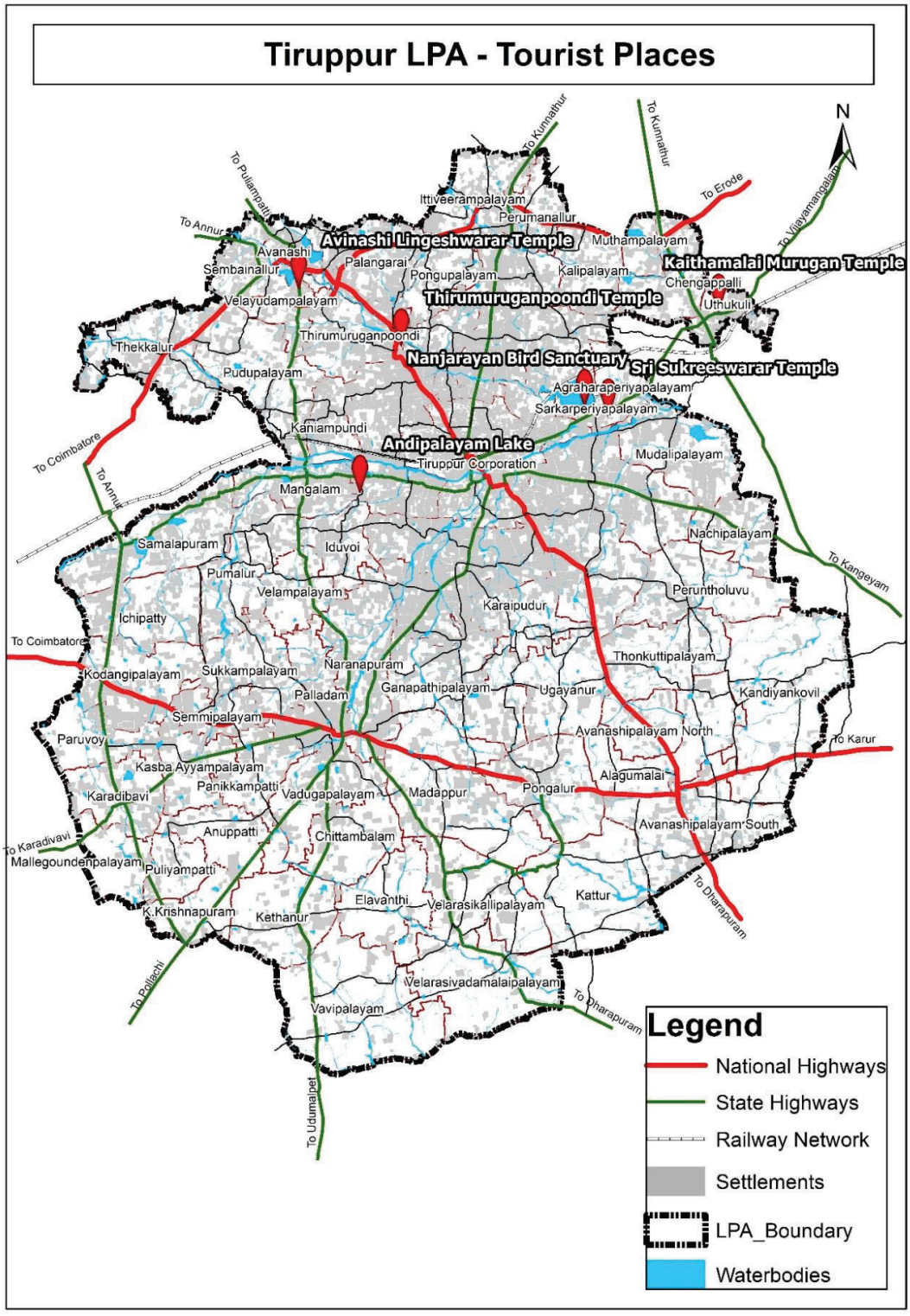
TOURISM

12 TOURISM

Tourist attractions in the Tiruppur LPA (and nearby) are primarily the temples which date back to the ruling periods of Cholas and Pandya's. Some of these temples are Avinashiappar Temple (Avinashi), Tirupati Sri Venkatesa Perumal Temple (Tiruppur), Sukreeswarar Temple (Tiruppur), Konganagiri Temple (Tiruppur), Subramanyaswami Temple (Sivanmalai) and Vaazhaithottathu Ayyan Kovil Samalapuram), Kathithamalai Murugan Temple (Uthukuli).

Other than these temples, few wetlands like Koolipalayam, Andipalayam etc., within the LPA are some of the local tourist-based traffic generating nodes. Further, various tourist locations outside the LPA that generate local as well through traffic within LPA are Amarvathi Crocodile Farm, Thirumoorthy Dam, etc.

Tiruppur's tourism development should focus on sustainability, preserving its cultural heritage, and showcasing the unique aspects that make the city a desirable destination. By offering diverse experiences, fostering community involvement, and ensuring infrastructure development, Tiruppur can tap into the potential of tourism as a significant contributor to its economy.



Map 55 Major Tourists Location, Tiruppur LPA

13

REVIEW OF EXISTING MASTER PLAN

13 REVIEW OF EXISTING MASTER PLAN

13.1 EXISTING LANDUSE 1999

According to Master plan prepared during 1999, the Local Planning Area considered is around 219.98 Sq.km. As per the master plan, only 28% of the land-use is considered as developable land and remaining 72% was considered under Agricultural Dry land. The land use distribution for Tiruppur LPA in 1999 is presented in Table below. The land use pattern shows that around 21% of the area is under residential zone, 2% is under commercial zone, 4% under industrial zone and 1% under public/semi-public and recreational use.

Table 83 Landuse, Tiruppur Master Plan, 1999

LANDUSE	AREA IN SQ.KM	AREA IN %
Residential	46.42	21
Commercial	4.02	2
Industrial	9.20	4
Educational	1.38	1
Public and Semi Public	1.14	1
Agricultural Dry	157.79	71

Urban growth in Tiruppur city has followed a radial pattern with organic development along the highways. While radials have been well developed, the circular road development is lagging resulting in detour, and congestion in central areas. The proposed land use of Tiruppur LPA for 2021 is presented in Table below.

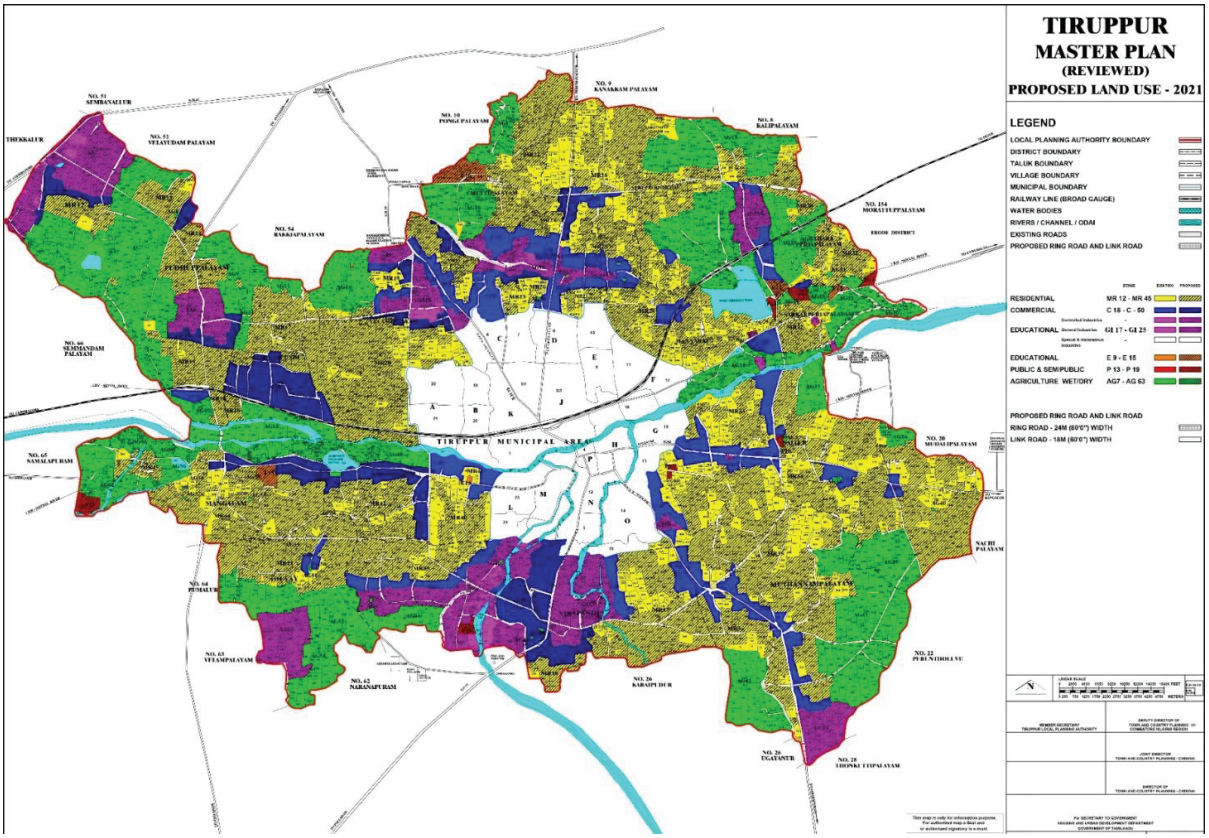
Table 84 Proposed Land Use Plan for 2021 in 1999 Master Plan

LANDUSE	% OF SHARE
Residential	62
Commercial	11

LANDUSE	% OF SHARE
Industrial	6
Educational	0.5
Public and Semi Public	0.5
Agricultural Dry	20

It is observed from the proposed land-use that residential land-use is higher with 62% and agricultural land-use is 20%. Commercial land-use is 11% whereas industrial land-use is 6%.

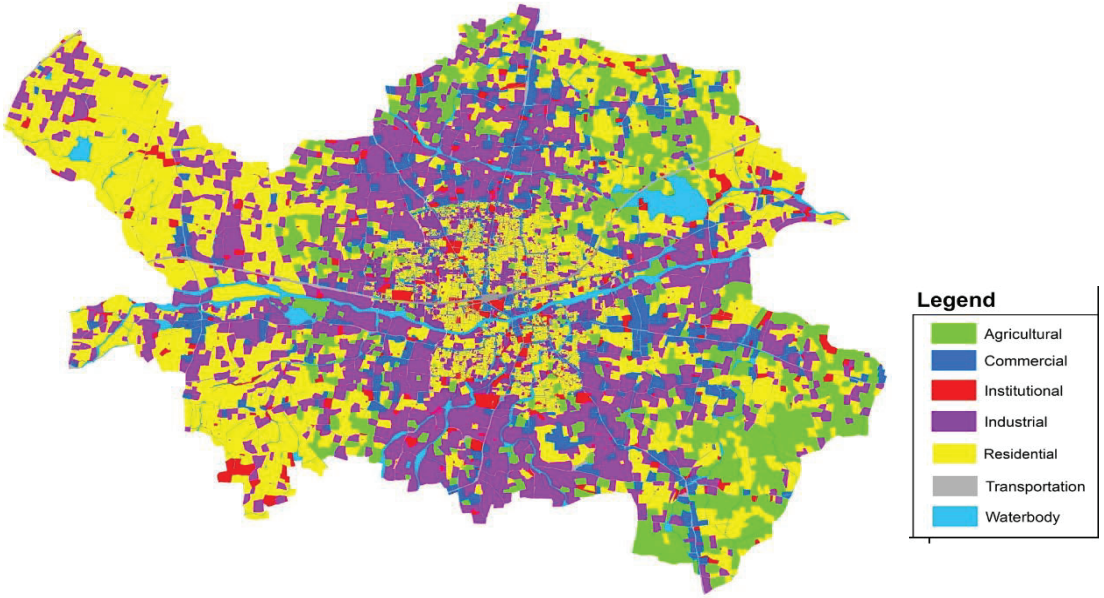
13.2 EXISTING LANDUSE 2021



Map 56 Tiruppur Proposed Master Plan-2021 (Landuse)

Table 85 Proposed vs Existing Land Use Plan for 2021

LANDUSE	2021 PROPOSED LANDUSE IN SQ.KM	PERCENTAGE OF THE TOTAL LANDUSE	2021 EXISTING LANDUSE AREA IN SQ.KM	PERCENTAGE OF THE TOTAL LANDUSE	COMPARISON OF EXISTING AND PROPOSED
Residential	141.09	64.14%	51.45	23.39%	-89.64
Commercial	22.66	10.30%	19.81	9.01%	-2.85
Industrial	14.76	6.71%	67.97	30.90%	53.21
Institutional	2.64	1.20%	8.65	3.93%	6.01
Recreational	0.00	0.00%	0.07	0.03%	-
Transport	0.00	0.00%	12.48	5.67%	-
Waterbodies	0.00	0.00%	10.55	4.80%	-
Agriculture	38.82	17.65%	48.98	22.27%	10.16
	219.97		219.97		



Map 57 Tiruppur Proposed Master Plan-2021 (Landuse)

The current land use scenario starkly deviates from the projections envisioned two decades ago. The proposed plan, anticipating a residential expansion to 141.09 sq.km (64.14% of the total land use), reflects a substantial shift in the urban landscape, surpassing existing residential areas by 89.64 sq.km. This OVER anticipated surge suggests dynamic demographic and urbanization patterns that have reshaped the city over the years.

In contrast, the industrial sector, projected at 14.76 sq.km (6.71% of the total land use), significantly exploded to 67.97 sq.km. This marked increase of 53.21 sq.km underscores a huge deviation from the anticipated industrial growth, highlighting the complexity and unpredictability of economic and development factors over the 20-year period.

The observed disparities emphasize the necessity for adaptive and responsive urban planning, acknowledging the dynamic nature of cities and the importance of reassessing long-term projections to align with evolving socio-economic and environmental dynamics. The present state reflects the continuous evolution of urban landscapes, necessitating a nuanced and flexible approach to accommodate changing urban needs and aspirations.

Table 86 Proposed vs Existing Land Use Plan for 2021

PROPOSALS	CURRENT STATUS
Ring road-24m width (80 feet)	Ring Road formed but the width is not adequate(existing7-12m)
Formation of 40 feet link road connecting ABT road and Palladam road within the municipal limit	Implemented
Construction of Truck Terminal	Not Implemented
Neighbourhood scheme	Not Implemented
Development of Pilgrim Centre	Not Implemented

The current status reveals a varied implementation scenario, with successful execution of the 40-feet link road, while critical projects like the ring road, truck terminal, neighborhood scheme, and pilgrim center remain unimplemented. Possible reasons for this disparity could include budget constraints, bureaucratic hurdles, or shifting priorities. Effective coordination, increased investment, and a prioritized approach are essential to address these pending projects and ensure holistic urban development in the region.

14

REMARKS FROM STAKEHOLDERS MEETING

14 REMARKS FROM STAKEHOLDERS MEETING

Comments and Suggestions (Meeting Held on 23.10.2021 - Chaired by the Principle Secretary to Government, Housing and Urban Development Department, Meeting Held on 17.06.2023, 18.08.2023 – Chaired by DRO)

- Conservation of water bodies
- Recreational facilities to be created along Noyyal river
- Higher percentage of the Residential areas to be provided around the Industrial area to reduce the travel time.
- New bus stand proposals can be considered at to decentralize the bus traffic.
- CMP shall be included in the Master plan
- Ring roads should have better connectivity at river crossing and Rail crossing
- Railway goods shed to be moved in Vanjipalayam since it has better connectivity to NH.
- Water use efficiency and reusing water from treatment plants
- STP de centralizations and new proposals with site identification

Studies from **Comprehensive Mobility Plan** Prepared for the Tiruppur Proposed LPA is included in the Master Plan

Studies from **Coimbatore Regional Plan** (under Preparation) is considered in the Plan

Stakeholders meeting for Coimbatore Regional plan was conducted on 18.08.2023 and it was attended by the Industrial Associations in Tiruppur (TEA, SIHMA, KnitcMA, TEKPA, Vetri NGO)

15

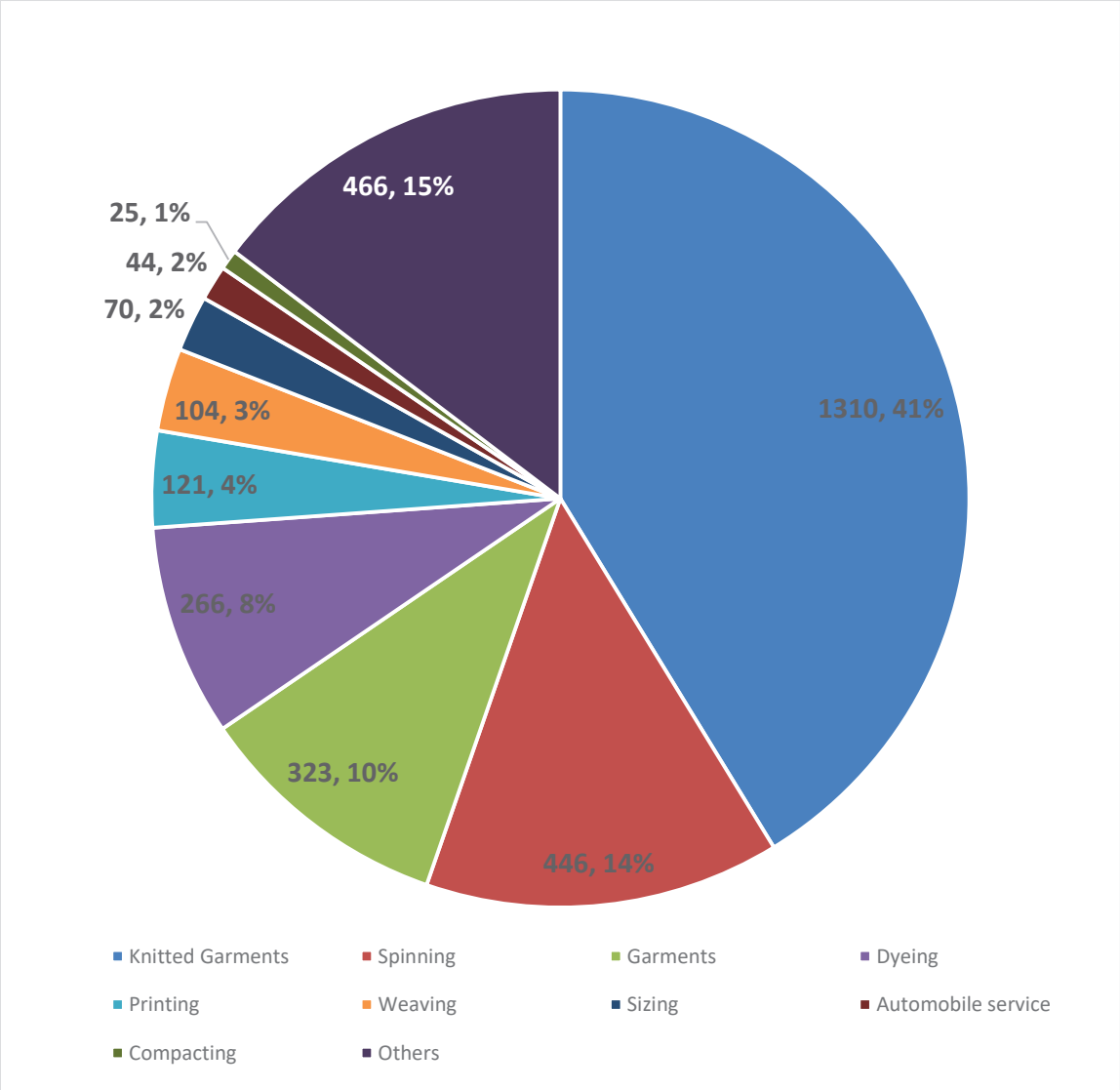
ISSUES AND POTENTIALS

15 ISSUES AND POTENTIALS

15.1 ISSUES

15.1.1 Issues in Economy

Tiruppur's economic landscape has historically been dominated by textile-related industries, comprising a staggering 92.5% of the total industries in the Local Planning Area (LPA). While the prominence of this sector has contributed significantly to the region's economic growth and employment generation, it also poses inherent risks associated with overreliance. The overconcentration of economic activities within a single industry exposes Tiruppur to vulnerabilities that could impact its overall economic resilience and sustainability.



The textile sector's dominance in Tiruppur's industrial profile makes the region particularly susceptible to external factors and global market dynamics. One notable concern is the intense competition from other manufacturing hubs, both within India and on the international stage. As the textile industry operates in a globally interconnected market, the competition for market share is fierce. Other textile-producing regions, both domestically and internationally, pose a potential threat to Tiruppur's market share.

The risk of economic overreliance on textile-related industries becomes more pronounced when considering fluctuations in global demand, changes in consumer preferences, and the emergence of new technologies. In the event of economic downturns, shifts in trade policies, or disruptions in the supply chain, Tiruppur's economy, being heavily dependent on textiles, may face challenges in adapting swiftly to changing circumstances.

To mitigate these risks and enhance economic resilience, Tiruppur should consider diversifying its industrial base. Encouraging the growth of non-textile industries, promoting innovation and technology adoption, and exploring new economic sectors can help create a more balanced and resilient economy. This strategic diversification will not only reduce dependency on a single industry but also position Tiruppur to navigate challenges more effectively and capitalize on emerging opportunities in the broader economic landscape. Adopting a holistic approach to economic development will be instrumental in ensuring long-term prosperity for Tiruppur and fostering a sustainable and diverse industrial ecosystem.

15.1.2 Issues in Mobility

Absence of Ring Roads with Adequate Width:

The absence of well-designed and sufficiently wide ring roads poses a significant challenge for Tiruppur's transportation infrastructure. Ring roads play a crucial role in diverting through-traffic away from the congested city center, enhancing traffic flow, and reducing travel time. The lack of such

infrastructure not only contributes to traffic congestion but also hampers the overall efficiency of transportation within the LPA.

Limited and Inadequate North-South Connectivity across Rail and Natural Barriers:

Tiruppur faces constraints in terms of North-South connectivity due to both rail and natural barriers. Inadequate transport links across these barriers can impede the smooth flow of goods and people, affecting trade, commerce, and daily commuting. A comprehensive plan for improving connectivity across these barriers is essential to unlock economic potential and enhance accessibility.

Movement of Freight/Goods Vehicles within Settlements:

The movement of freight and goods vehicles within settlements presents a multifaceted challenge. Approximately 10.1% of goods vehicles operate within the inner cordons of the LPA, contributing to congestion, safety concerns, and environmental issues. The absence of designated routes and infrastructure for freight movement exacerbates the challenges, necessitating a strategic plan to streamline the transportation of goods within the settlement areas.

GPS Map Camera
Tiruppur, Tamil Nadu, India
1/575, Vallalar Nagar, AB Nagar, Karuvampalayam, Tiruppur, Tamil Nadu 641604, India
Lat 11.05935°
Long 77.334149°
13/12/23 05:47 PM GMT +05:30
Google

GPS Map Camera
Tiruppur, Tamil Nadu, India
TKT Mill Bus Stop, Tiruppur Palladam Road (SH-19), Balaji Nagar, AB Nagar, Veerapandi, Tiruppur, Tamil Nadu 641604, India
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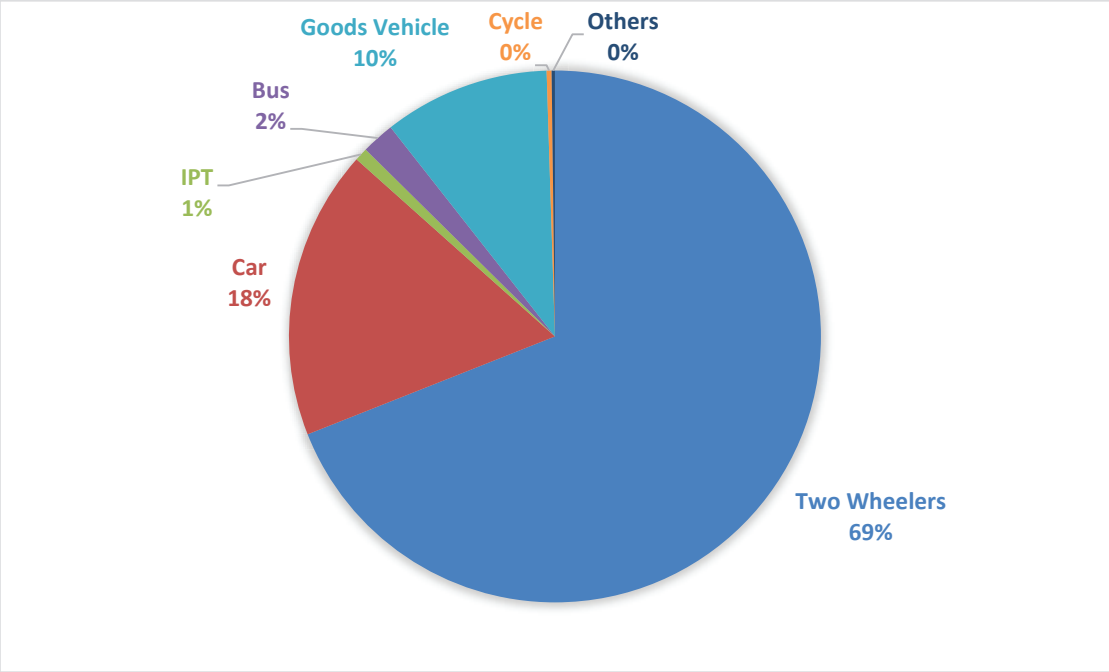


Less than 3% of Public Transport:

The low utilization of public transport, accounting for less than 3% of the total transportation mix, indicates a heavy reliance on private vehicles. This reliance not only contributes to traffic congestion but also poses environmental sustainability challenges. Enhancing public transport infrastructure, expanding services, and promoting a shift towards sustainable modes of transportation are critical components of a comprehensive solution to address this issue.

Addressing these transportation challenges in Tiruppur requires a holistic approach involving urban planning, infrastructure development, and policy interventions. Strategic investments in ring road construction, improving connectivity across barriers, implementing efficient freight movement strategies, and promoting public transport are essential components of a comprehensive transportation plan. Such measures not only alleviate existing issues but also pave the way for a more sustainable and resilient transportation infrastructure that can support the growing needs of the Tiruppur LPA.

15.1.3 Issues in Social Infrastructure and Tourism

Drastic Need to Achieve Parks and Green Spaces

The absence of adequate parks and green spaces in Tiruppur poses a significant challenge, particularly in meeting the Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines. These guidelines emphasize the importance of green spaces for a city's overall well-being, providing recreational areas, promoting biodiversity, and mitigating environmental stress. The scarcity of parks not only impacts the quality of life for residents but also hampers the city's ability to create a sustainable and livable environment.

Addressing this issue requires a strategic plan to allocate land for parks and green spaces, considering the city's current and future population growth. The development of public parks, community gardens, and green belts can contribute to enhancing the aesthetic appeal of the city, promoting physical and mental well-being, and ensuring a harmonious coexistence with nature.

Lack of Tourism Infrastructure in the LPA

Tiruppur's potential as a tourist destination is hindered by the lack of tourism infrastructure. While proposed projects like the Andipalayam Lake and Nanjarayan Bird Sanctuary indicate recognition of the need for tourism development, the current deficit in infrastructure limits the city's ability to capitalize on its cultural, natural, and historical assets.

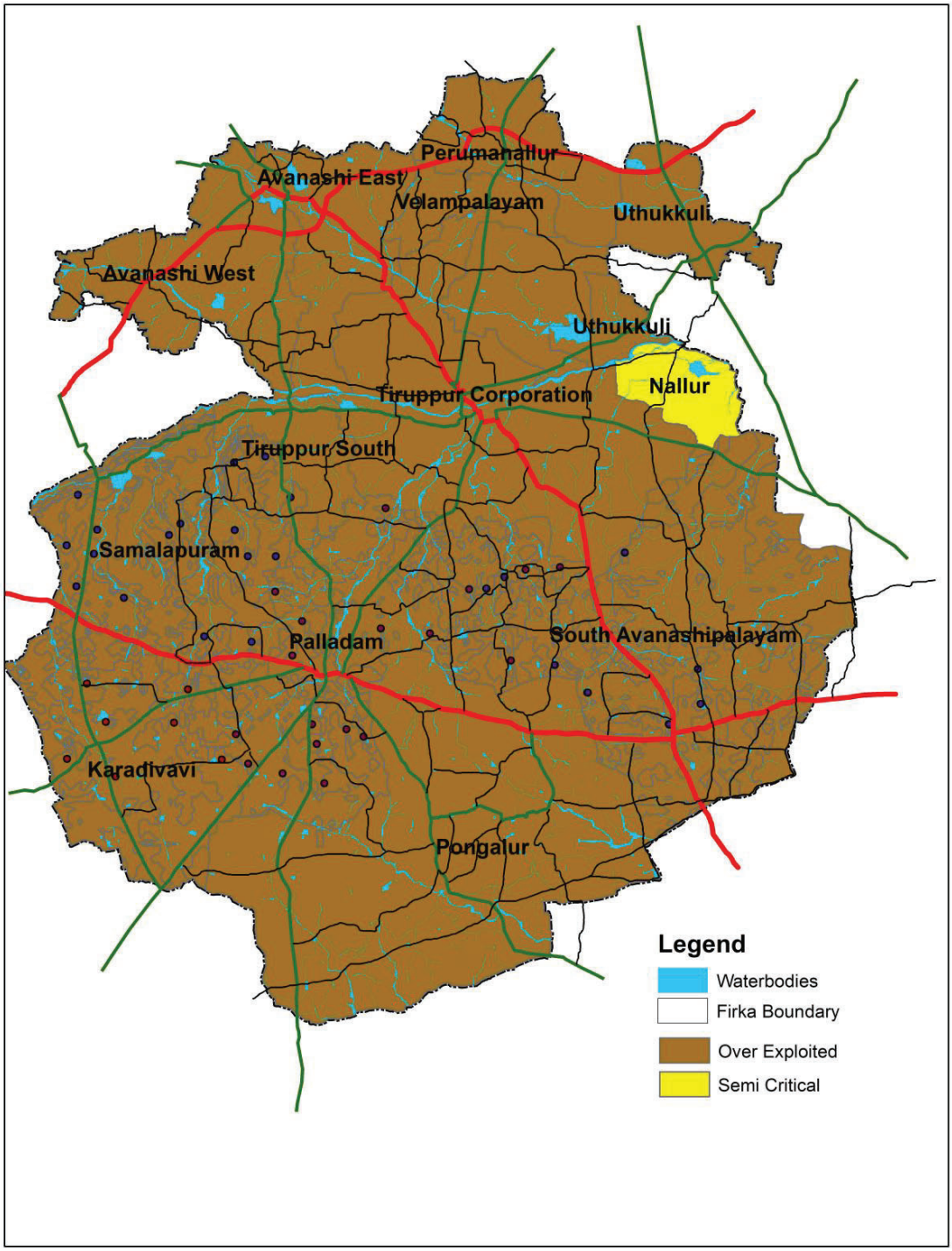
To address this, there should be a concerted effort to develop and implement a comprehensive tourism infrastructure plan. This plan should include the construction of amenities such as visitor centers, pathways, signage, and recreational facilities around proposed tourist attractions. Collaboration between government bodies, local businesses, and community stakeholders is crucial to realizing the full potential of tourism in Tiruppur.

Additionally, sustainable tourism practices can contribute to the conservation of natural and cultural heritage, ensuring that tourism development aligns with the principles of responsible and eco-friendly growth.

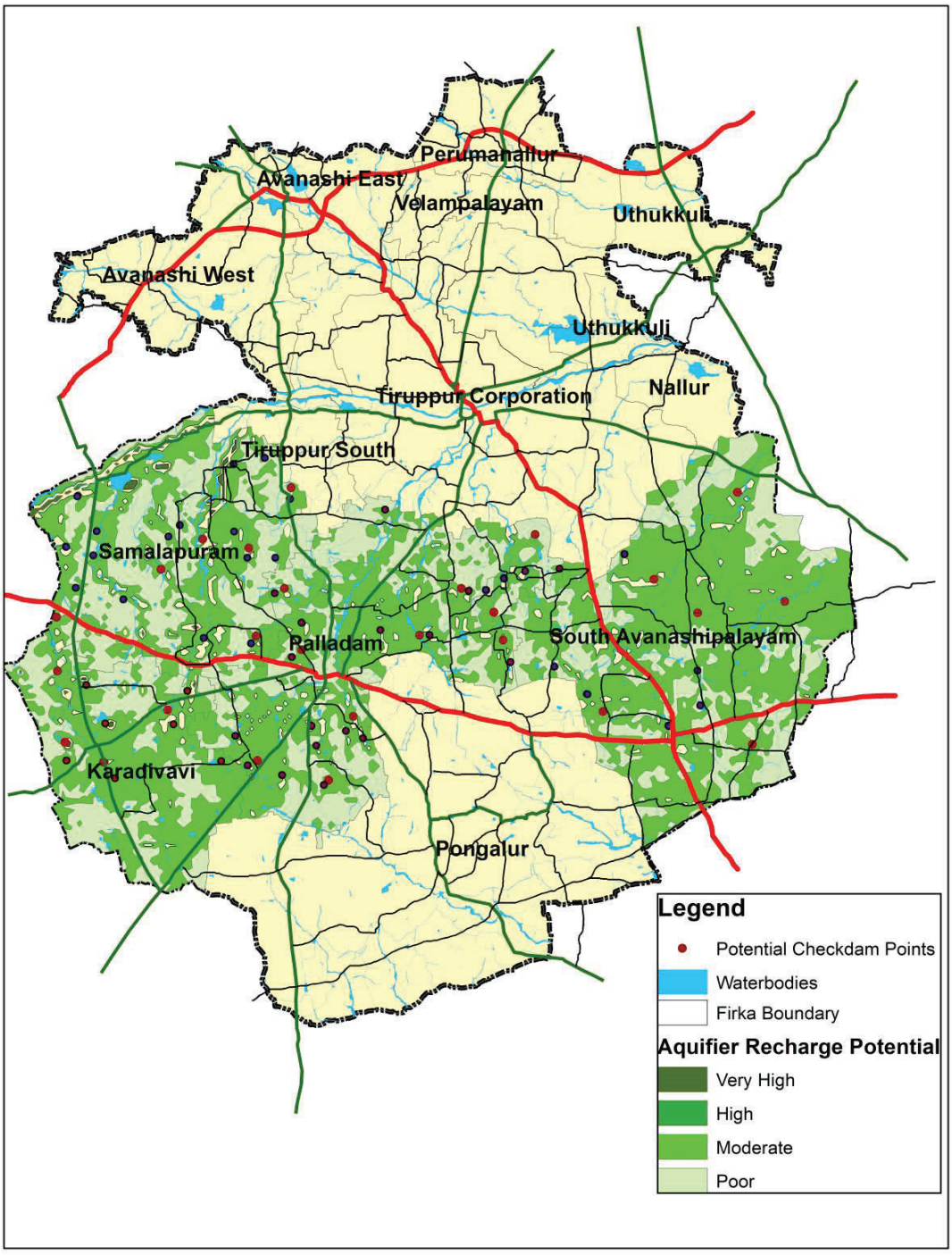
In summary, addressing the dearth of parks and green spaces in Tiruppur, along with the development of tourism infrastructure, requires a comprehensive and collaborative approach. By incorporating these elements into the city's urban planning and development initiatives, Tiruppur can create a more sustainable, resilient, and attractive environment for both residents and visitors.

15.1.4 Issues in Groundwater

The Local Planning Area (LPA) encompasses a total of 12 Firkas, with a predominant water resource classification revealing significant concerns. Out of these Firkas, 11 are classified as over-exploited, signifying a critical strain on their water resources. Additionally, one Firka is identified as semi-critical, indicating an impending threat to its water sustainability. A comprehensive study covering 44.4% of the LPA's land area has been conducted to evaluate its potential for groundwater recharge. Within this assessment, only a minute 0.01% of the land exhibits very high recharge potential, while 3.93% is identified as having a high recharge potential. However, the most extensive portion, accounting for 56.01% of the studied land, presents a moderate recharge potential. These findings underscore the pressing need for strategic water resource management and conservation initiatives across the LPA to address the escalating concerns surrounding water availability and sustainability.



Map 58 Map Showing Ground Water condition of Firkas



Map 59 Map Show Recharge Potential of 4 firkas in Tiruppur LPA

15.2 POTENTIALS

15.2.1 Potentials in Economy

The envisioned **Trade Centre** holds immense potential as a strategic initiative to propel Tiruppur into global markets for textiles. This center serves as a vital platform, connecting local textile industries with international markets, fostering trade partnerships, and expanding market reach. Its establishment not only positions Tiruppur as a global textile hub but also stimulates economic growth by attracting international investments and facilitating the export of locally manufactured textiles.

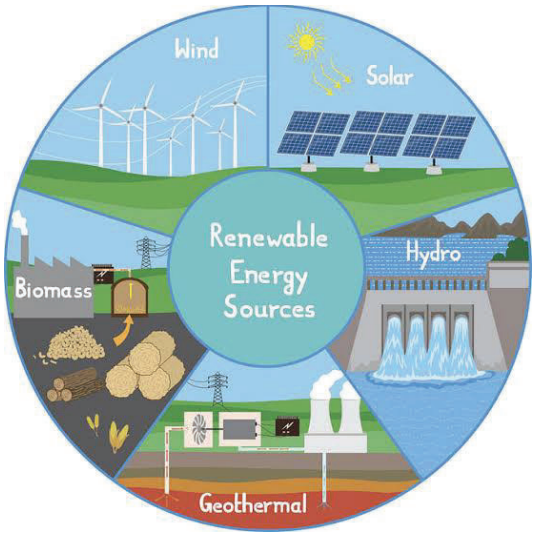
To fortify the region's economic foundation, **skill improvement centers** play a pivotal role in bridging existing skill gaps within the workforce. By providing targeted training programs and upskilling opportunities, these centers empower individuals in the Tiruppur community with the knowledge and expertise necessary to meet the evolving demands of the textile industry. This initiative enhances the overall competitiveness of the local workforce and aligns with the industry's demand for skilled professionals.

Diversification into other industries emerges as a strategic imperative to reduce dependence on textiles and fortify Tiruppur's economic resilience. Initiatives aimed at fostering a diversified industrial landscape can include exploring sectors such as Information Technology, agribusiness, and

renewable energy. By encouraging the establishment of businesses in these diverse domains, Tiruppur can mitigate risks associated with overreliance on a single industry and create a more robust and balanced economic ecosystem.

Agribusiness initiatives focusing on coconut byproducts present an opportunity to harness the agricultural potential of the region. From coconut-based products to sustainable farming practices, this diversification strategy not only stimulates rural development but also contributes to the region's economic sustainability. It aligns with the broader vision of promoting agriculture as a thriving sector and tapping into the diverse opportunities within the agribusiness domain.

Incorporating Information Technology, agribusiness, and renewable energy into Tiruppur's economic landscape positions the region for comprehensive and sustainable growth. These diversified initiatives not only bolster the economic foundation but also create a resilient and dynamic environment, fostering innovation, attracting diverse talent, and ensuring long-term prosperity for Tiruppur and its communities.



15.2.2 Potentials in Mobility

Truck Terminals: Establishing dedicated truck terminals has the potential to significantly reduce congestion in the core city by providing centralized hubs for goods transportation and distribution.

Connectivity to Thoothukudi Seaport: Enhancing connectivity to Thoothukudi seaport streamlines goods transportation for exports, facilitating smoother trade operations and boosting economic activities.

ROB and RUBs along Railway Alignment: Building Rail Over Bridges (ROBs) and Rail Under Bridges (RUBs) along the railway alignment minimizes travel distances, improving overall transportation efficiency and reducing congestion around railway crossings.

Ring Road Construction: The construction of a ring road that connects to the existing radial road structure ensures a more organized and streamlined traffic flow, reducing bottlenecks and enhancing accessibility within the city.

Suburban Transit System: Implementing a suburban transit system along the Coimbatore-Erode corridor not only improves regional connectivity but also provides residents with a sustainable and efficient public transportation option, reducing reliance on private vehicles.

15.2.3 Potential in Water Front Development

- **Creating buffer zones around water bodies** enhances green infrastructure and conserves blue infrastructure.
- Combining green and blue infrastructure **fosters biodiversity and wildlife habitats.**
- Riverfront Development along the Noyyal River
- Lakefront Development in the lakes
    - Sangamam Lake,
    - Nanjarayan Lake,
    - Samalapuram Lake,
    - Andipalayam Lake,
    - Thamaraikulam,
    - Moolikulam

16

MASTER PLAN STRATEGY

16 MASTER PLAN STRATEGY

16.1 CONCEPT PLAN (SWOT ANALYSIS)

16.1.1 Strengths

Textile Hub: Tiruppur's reputation as a leading textile and garment manufacturing hub has established it as a prominent player in the global textile trade. The city's expertise in knitwear production gives it a competitive edge in the industry.

Skilled Workforce: The presence of a skilled and adaptable workforce across various industries, including textiles, agriculture, and IT, contributes to the city's ability to cater to diverse economic activities.

Strategic Location: Located in the western part of Tamil Nadu, Tiruppur's central position within the state and its proximity to major cities like Coimbatore and Erode make it an important trading and transportation junction.

Industrial Diversity: Beyond textiles, Tiruppur hosts a range of industries such as agriculture, sericulture, and animal husbandry. This diversity mitigates the risk of relying solely on a single sector.

Infrastructure Development: The city's ongoing efforts in infrastructure development, including road networks, water supply, and waste management systems, create a conducive environment for business growth.

Cultural Heritage: Tiruppur's rich cultural heritage, including traditional arts and crafts, provides an opportunity for cultural tourism, attracting visitors interested in experiencing its unique identity.

16.1.2 Weaknesses:

Water Scarcity: Despite development efforts, Tiruppur faces water scarcity due to over-extraction, pollution, and competing demands from various sectors. This poses a risk to industrial and agricultural activities.

Environmental Impact: The rapid growth of industries and urbanization has led to environmental concerns, including pollution of water bodies and air quality degradation. Addressing these challenges is crucial for sustainable development.

Limited Diversification: The city's economy is heavily reliant on textiles. This dependence makes Tiruppur vulnerable to fluctuations in global demand and changes in market preferences.

Infrastructure Gaps: While infrastructure development is ongoing, some areas may still lack adequate transportation networks and utility services, impacting overall accessibility and livability.

Seasonal Dependence: Industries like agriculture are susceptible to climatic changes, affecting crop yields and farmers' livelihoods during adverse weather conditions.

16.1.3 Opportunities:

Diversification: Tiruppur can explore diversification into emerging sectors such as renewable energy, technology, and agribusiness. This would reduce dependency on textiles and stimulate new sources of growth.

Sustainability Initiatives: Adopting sustainable practices in industries like textiles and agriculture can improve the city's image, attract environmentally conscious consumers, and reduce resource consumption.

Tourism Potential: Capitalizing on its cultural heritage and proximity to tourist destinations like hill stations and wildlife sanctuaries, Tiruppur can develop tourism infrastructure to attract visitors.

Skill Enhancement: Investments in skill development and vocational training programs can enhance the workforce's capabilities and support emerging industries, creating more job opportunities.

Urban Planning: Implementing well-structured urban planning initiatives can enhance the city's livability, reduce congestion, and improve the overall quality of life for its residents.

16.1.4 Threats:

Global Economic Factors: Fluctuations in the global economy can impact demand for textile products, affecting the city's textile industry and export revenue.

Competition: Increasing competition from other manufacturing hubs within India and across the globe could result in price wars and reduced market share for Tiruppur's products.

Climate Change: Changing weather patterns, including unpredictable rainfall and extreme events, can disrupt agriculture, impact water availability, and damage infrastructure.

Resource Depletion: Unsustainable practices in agriculture, water usage, and industrial processes can lead to resource depletion, negatively affecting the long-term viability of economic activities.

Infrastructure Challenges: Rapid urbanization can strain existing infrastructure, leading to congestion, inadequate utilities, and challenges in accommodating a growing population.

By understanding these internal and external factors, Tiruppur can develop strategies that capitalize on its strengths, address its weaknesses, seize opportunities, and mitigate threats, ultimately leading to more resilient and sustainable growth.

16.2 VISION STATEMENT

"To create a vibrant, sustainable, and inclusive urban environment in Tiruppur that enhances the quality of life for all residents, fosters economic growth, preserves the environment, and ensures equitable access to opportunities."

16.3 OBJECTIVES

1.Population Growth and Housing:

Develop a Comprehensive Housing Strategy: Conduct a thorough assessment of the current housing demand and projected population growth. Design a strategy that addresses the need for affordable housing, rental options, and home ownership. Consider promoting mixed-income neighborhoods to foster social integration.

Mixed-Use Developments: Encourage the construction of mixed-use developments that combine residential, commercial, and recreational spaces.

This approach promotes walkability, reduces commuting, and enhances the overall urban experience.

Green Building Techniques: Encourage developers to adopt sustainable building practices, such as using eco-friendly materials, energy-efficient designs, and renewable energy sources. Offer incentives for buildings that meet green certification standards.

2.Infrastructure Improvement: Transportation Networks: Prioritize the expansion of public transit options, cycling lanes, and pedestrian-friendly pathways.

Utility Upgrades: Modernize the city's water supply, sewage systems, and waste management infrastructure. Implement advanced technologies for efficient resource allocation and waste reduction.

Smart City Integration: Implement smart technologies to improve city management. This includes smart traffic management, waste collection systems, and real-time monitoring of utilities to optimize resource allocation.

3.Economic Growth and Job Creation:

Business-Friendly Environment: Simplify and streamline the process for starting and operating businesses. Offer incentives such as tax breaks and grants to attract local and foreign investment.

Industry Diversification: Identify emerging industries and sectors that align with the city's strengths and resources. Develop specialized zones or incubators to encourage innovation and entrepreneurship in these sectors.

Industrial Zones: Create designated industrial zones with proper infrastructure, transportation access, and utility services to attract manufacturing and production companies.

4. Environmental Preservation:

Green and Blue Infrastructure: Develop a comprehensive plan for green spaces, parks, and water bodies that promote biodiversity and provide recreational opportunities for residents. Incorporate sustainable landscaping practices.

Waste Management: Implement a waste management strategy that emphasizes recycling, composting, and waste reduction. Establish collection points for hazardous waste disposal.

Renewable Energy: Incorporate solar panels, wind turbines, and other renewable energy sources into the urban fabric. Provide incentives for residents and businesses to adopt renewable energy systems.

5. Quality of Life Enhancement:

Cultural and Recreational Facilities: Invest in cultural institutions, theaters, museums, and community centers to provide residents with diverse entertainment and educational opportunities.

Healthcare and Education: Upgrade healthcare facilities and schools to ensure that residents have access to quality services. Develop partnerships with educational institutions to foster skill development and lifelong learning.

Public Spaces: Create well-designed public spaces such as plazas, parks, and pedestrian zones that encourage social interaction, leisure activities, and community events.

6. Stakeholder Engagement and Collaboration:

Community Involvement: Hold regular town hall meetings, workshops, and surveys to engage residents in the planning process. Incorporate their feedback and ideas into the development plan.

Interagency Collaboration: Collaborate with neighboring municipalities, regional authorities, and relevant government agencies to coordinate infrastructure projects, transportation systems, and other cross-boundary initiatives.

7. Data-Driven Decision Making:

Data Collection and Analysis: Gather data on demographics, traffic patterns, energy consumption, and other relevant metrics. Analyze this data to identify trends, anticipate challenges, and make informed decisions.

Predictive Modeling: Use data-driven predictive modeling to forecast future population growth, resource demand, and urban development needs. This helps in making proactive plans and adjustments.

8. Timeline and Implementation:

Phased Approach: Divide the development plan into distinct phases to manage resources efficiently. Each phase should have clear objectives, budgets, and timelines.

Prioritization: Prioritize projects based on their potential impact, urgency, and alignment with the overall vision. Focus on projects that create immediate benefits and contribute to long-term goals.

9. Monitoring and Evaluation:

Key Performance Indicators (KPIs): Define measurable KPIs to track progress and assess the success of each development initiative. This could include indicators such as increased green space, reduced traffic congestion, and improved air quality.

Regular Reporting: Provide regular updates to the public and stakeholders on the status of projects, achievements, challenges, and adjustments made to the plan. Transparency fosters trust and engagement.

By following this elaborated vision document, Tiruppur can work towards a future that balances growth, sustainability, and quality of life for its residents. The active involvement of stakeholders and the integration of data-driven insights will be crucial in realizing this vision.

17

PROJECTED REQUIREMENTS AND PROPOSALS

17 PROJECTED REQUIREMENTS AND PROPOSALS

17.1 POPULATION PROJECTION

The population projections for Tiruppur LPA are carried out for a period of 20 years with base year as 2011. The population for the year 2041 is projected by following mentioned methods. The method which corresponds to optimum value in the projected population is to be adopted for further analysis.

17.1.1 Arithmatic Increase Method

In this method the average increase in population for seven decades is calculated from the past census data obtained. The average increase is added to the base line population to find out the existing population and for the years 2031 and 2041. The following table illustrates the arithmetic population projection for 2021, 2031, 2041 of Tiruppur LPA. In this projection method, the census population data from 1981 onwards are utilized.

Table 87 Arithematic Progression Method

	PROJECTED 2021	PROJECTED 2031	PROJECTED 2041
Tiruppur Corporation	1063416	1274122	1484827
Municipalities	90457	107160	123864
Town Panchayats	68992	78296	87599
Villages in LPA	439409	505157	570905
Total LPA	1662274	1964735	2267195

17.1.2 Geometric Increase Method

In this method, it is assumed that the percentage increase in population from the available census records, this percentage is fixed and then population of each future successive decade is calculated. The following table illustrates the geometric population projection for 2021, 2031, 2041 of Tiruppur LPA. In this projection method, the census population data from 1981 onwards are utilized.

Table 88 Geometric Progression Method

	PROJECTED 2021	PROJECTED 2031	PROJECTED 2041
Tiruppur (Corp)	1337464	2097792	3290354
Municipalities	107677	157205	229515
Town Panchayats	73278	89962	110443
Villages in LPA	465810	580683	723886
Total LPA	1984229	2925642	4354198

17.1.3 Incremental Increase Method

This method combines the above two methods. The incremental increase is determined for each decade from the past population and the average value is added to the base year population along with the average rate of increase. The following table illustrates the incremental increase method of population projection for 2021, 2031, 2041 of Tiruppur LPA.

Table 89 Incremental Increase Method

	PROJECTED 2021	PROJECTED 2031	PROJECTED 2041
Tiruppur (Corp)	1165927	1581653	2099890
Municipalities	97802	129197	167937
Town Panchayats	73471	91733	114473
Villages in LPA	489690	656000	872591
Total LPA	1826890	2458583	3254891

Average of the above methods is given below.

Table 90 Average Population Projection

	PROJECTED 2021	PROJECTED 2031	PROJECTED 2041
Tiruppur (Corp)	1188936	1651189	2291690
Municipalities	98645	131188	173772
Town Panchayats	71914	86663	104172
Villages in LPA	464970	580613	722461
Total LPA	1824465	2449653	3292095

17.1.4 Final Projected Population

Considering the growth of the Tiruppur Corporation and Municipalities in the LPA, the growth rate hovers in the range of 40% to 55% and is in increasing trend. Therefore Incremental Increase projection is taken for Tiruppur Corporation and Municipalities. For Town Panchayats, the growth rate is in gradual increase and therefore, arithmetic increase method is taken for its projection. For villages, the growth rate is in increasing order and therefore geometric increase projection is followed for villages.

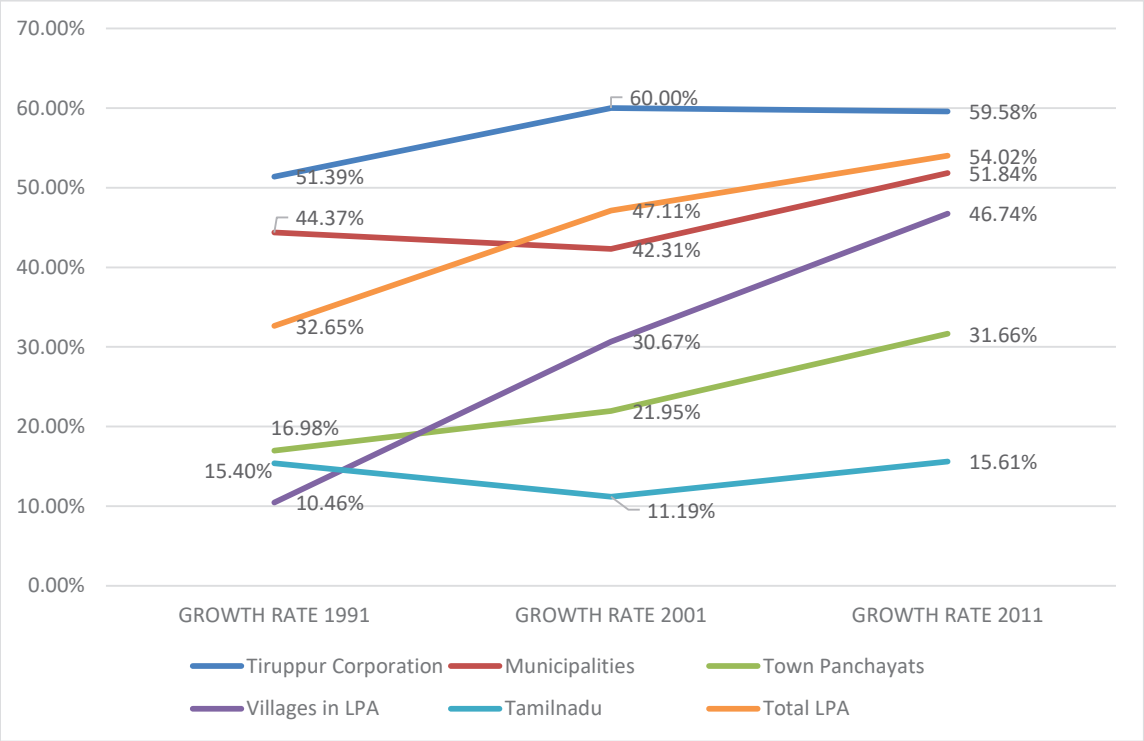


Figure 32 Growth Trend, Tiruppur LPA

Table 91 Final Population Projection

	PROJECTED 2021	PROJECTED 2031	PROJECTED 2041
Tiruppur (Corp)	1165927	1581653	2099890
Municipalities	97802	129197	167937
Town Panchayats	68992	78296	87599
Villages in LPA	465810	580683	723886
Total LPA	1798531	2369829	3079312

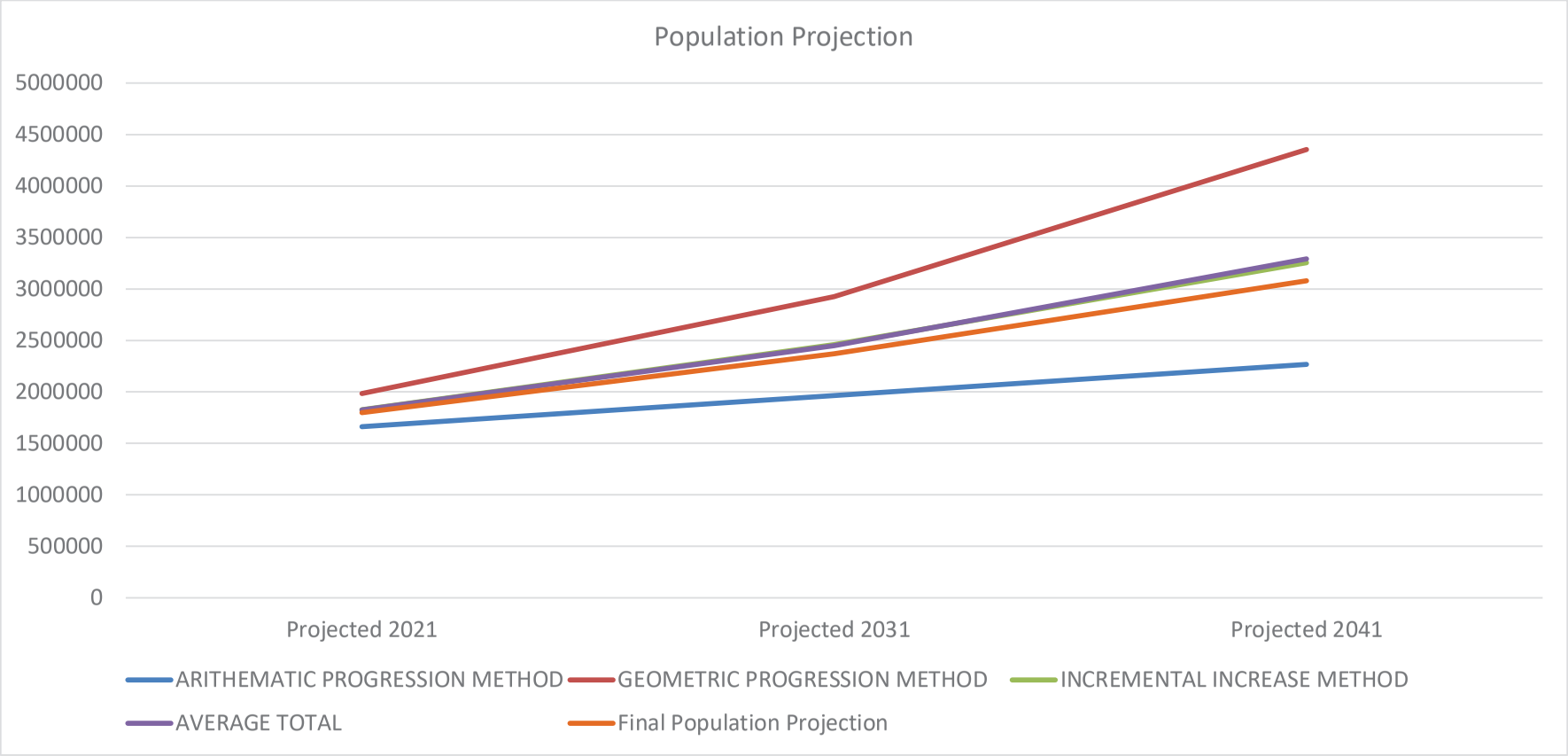


Figure 33 Population Projection

18

HOUSING PROJECTED REQUIREMENTS

18 HOUSING PROJECTED REQUIREMENTS

18.1 HOUSING DEMAND

Housing shortage shall be arrived by finding the additional households required in 2041, dilapidated, slum houses and homeless households in 2011. In Tiruppur LPA, housing shortage is 548164 as shown below.

Table 92 Housing Demand, Tiruppur LPA

SL.NO.	DESCRIPTION	POPULATION
1	Total Population 2011	1359814
2	Projected Population 2041	3079312
3	Additional Population	1719498
4	Additional Households in 2041	491285
5	Slum Households	56762
6	Houseless Households	117
7	Dilapidated houses	605
8	Total Additional Households in 2043	548164

18.2 LAND REQUIREMENT FOR HOUSING PROJECTION

Taking optimal land area per house of 200 square meters, to determine the total land area required, the optimal land area per house is multiplied by the total additional households. The calculated area requirement for housing in 2041 is 109.75 square kilometers (sq.km).

The calculated land requirement provides a quantitative foundation for urban planning initiatives in Tiruppur LPA. This analysis serves as a valuable tool for decision-makers, guiding the formulation of policies and strategies that align with the region's demographic and developmental trends. It emphasizes the need for sustainable and inclusive urban development practices to create resilient and vibrant communities for the future.

Table 93 Housing Demand, Tiruppur LPA

SL.NO	DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES	TOTAL
1	Population in 2011	8,52,711	31,528	42,225	59,689	3,73,661	13,59,814
2	Projected Population 2041	20,99,890	71,709	96,228	87,599	7,23,886	30,79,312
3	Additional Population	12,47,179	40,181	54,003	27,910	3,50,225	17,19,498
4	Additional Households in 2041	3,56,337	11,480	15,429	7,974	1,00,064	4,91,285
5	Type of Town (in 2041) as per URDPFI	Metropolitan City I	Medium Town I	Medium Town I	Small Town II	-	-
6	Density as per URDPFI per Hectare	125-175	100-150	100-150	75-125	-	-
7	Slum Households	53,602	239	2,038	883	-	56,762
8	Houseless Households	117	-	-	-	-	117
9	Dilapidated houses	605	-	-	-	-	605
10	Total Additional Households in 2041	4,10,661	11,719	17,467	8,857	1,00,064	5,48,769
11	Optimal Land Area Per House in sq.m	200	200	200	200	200	
12	**Area Requirement in Sq.km**	**82.13**	**2.34**	**3.49**	**1.77**	**20.01**	**109.75**

Land requirement for residential development is calculated as 109.75 sq.km for 2041 Projected population. However, considering the FSI as 2.0, total land area that shall be allocated for residential use is 55 sq.km.

18.3 TNUHDB PROPOSALS IN TIRUPPUR CLPA

18.3.1 Housing for all – Affordable Housing Projects

There are 5305 units in the below mentioned locations and such projects shall be introduced in the proposed residential areas for Housing for all.

S.No.	Name of the Village	No. of Units	Survey No.
1	Veerapandi	1280	429/1, 437
2	Bharathi Nagar PH II	384	613/2
3	Chettipalayam	240	81/2, 81/3
4	Peruntholuvu	192	479/3pt
5	Patel Nagar	272	377/2
6	Thirukumaran nagar	1248	597/1
7	Bharathi nagar Ph-1	288	613/1
8	Jaya nagar	256	598/6
9	Solai nagar	448	144
10	Pooridi nagar	224	425/1
11	Hitech Park	432	285/3
12	DHP scheme	41	24/3

18.3.2 Maintenance Schemes

There are 784 units in the below mentioned locations and such projects shall be introduced in the proposed residential areas for Housing for all.

SI No	Name of the Scheme	No. of units	Survey nos.	Ward No.	Block No.	TS. No.
a). Maintenance Schemes						
1	Ariovli Nagar PH I	256	105 Pt			
2	Ariovli Nagar PH II	288	105 P1			
3	Chellandiamman durai	240		45	1	101

18.3.3 TNUDP Schemes

There are 2095 units in the below mentioned locations and such projects shall be introduced in the proposed residential areas for Housing for all.

SI No	Name of the Scheme	No. of units	Survey nos.
1	Jammanal	54	9
2	KVR Nagar	125	110/1
3	KVR Nagar Anna Nagar	36	110/3
4	Periyathottam M.G.R Nagar	67	260/1
5	Ramamoorthy Nagar	38	103
6	Arivoli Nagar	1008	103/1
7	Muthalyan Nagar	201	21
8	Anna Nagar	75	1190,252/1
9	Sugumaran Nagar	491	1/1,3,1/1

18.4 AFFORDABLE HOUSING LOCATIONS

The strategies that shall be followed for providing affordable housing is as follows.

18.4.1 Public

- Implementation of the development option identified on its own through conventional contracting, i.e. EPC (Engineering Procurement and Construction) or item rate contract.
- Financing the project would depend on the budgetary provisions for slum rehabilitation.

18.4.2 Public- Private

- The public entity develops the infrastructure and the private entity develops the housing
- Private entity develops both infrastructure and the housing
- Due to private participation, higher efficiency in implementing the project is expected. This would result in comparatively lesser time and lower cost overruns.

18.4.3 Public-Community-Private

- This option would encompass a structure between the private partner and the representative of the community such as a cooperative society.
- In this option, the project structure could be such that the private entity could take up both the housing and the infrastructure, or only the housing with the public entity constructing the infrastructure.

18.4.4 Public-Community

- This would encompass a structure between the public entity and the community, which is the beneficiary/ the representative of the community such as a cooperative society.
- The entire infrastructure provision is made by the public entity and the community takes up the housing component.

18.4.5 Criteria for Site Selection for Affordable Housing Schemes

Site to be selected / approved should preferably be in the vicinity of existing infrastructure, so as to minimize delay and cost in extending various services to the scheme area.

- Proper Approach.
- Availability of Local Transport.
- Availability of Water & Electricity.
- Primary School to be in near vicinity.
- Primary Health Center facility nearby.

The Identified Locations for the affordable housing are along the boundary of the Tiruppur Corporation in Iduvoi, Mudalipalayam, Thirumuruganpoondi and Karaipudur. It is shown in the map below.

Map 60 Map Showing Affordable Housing Locations in Tiruppur LPA

18.5 IMPORTANCE OF VERTICAL DEVELOPMENT

Vertical development in city planning refers to the construction and development of buildings in a more upward direction, typically involving higher buildings or multi-story structures. Here are some suggestions for vertical development in city planning:

Mixed-Use Zoning:

Encourage mixed-use zoning to integrate residential, commercial, and recreational spaces within the same vertical development. This can lead to more vibrant and sustainable communities where people can live, work, and play within the same area.

Transit-Oriented Development (TOD):

Focus on developing vertical structures near public transportation hubs to reduce reliance on private vehicles. This not only minimizes traffic congestion but also promotes sustainable and efficient transportation options.

Green Building Design:

Emphasize sustainable and green building design principles to minimize the environmental impact of vertical development. This may include energy-efficient designs, green roofs, and the use of eco-friendly materials.

Smart Infrastructure:

Implement smart city technologies and infrastructure within vertical developments. This may involve integrating technologies for efficient energy use, waste management, traffic control, and enhanced connectivity.

Public Spaces and Amenities:

Design vertical developments with ample public spaces, parks, and recreational areas. Balancing density with green spaces enhances the quality of life for residents and contributes to a healthier urban environment.

Affordable Housing Initiatives:

Integrate affordable housing units within vertical developments to address housing challenges in urban areas. This helps create a diverse and inclusive community.

Architectural Innovation:

Encourage innovative architectural designs that not only maximize space utilization but also contribute to the aesthetic appeal of the city. Iconic and well-designed structures can become landmarks and promote the city's identity.

Community Engagement:

Involve the community in the planning process to understand their needs and preferences. Engaging residents ensures that vertical development aligns with the community's vision and values.

Resilience Planning:

Consider resilience against natural disasters and climate change in the design and construction of vertical developments. This includes strategies for flood prevention, earthquake resistance, and other environmental considerations.

Incentives for Developers:

Provide incentives for developers to invest in vertical development projects that align with sustainable and community-oriented goals. This can include tax breaks, density bonuses, or other regulatory incentives.

Cultural Preservation:

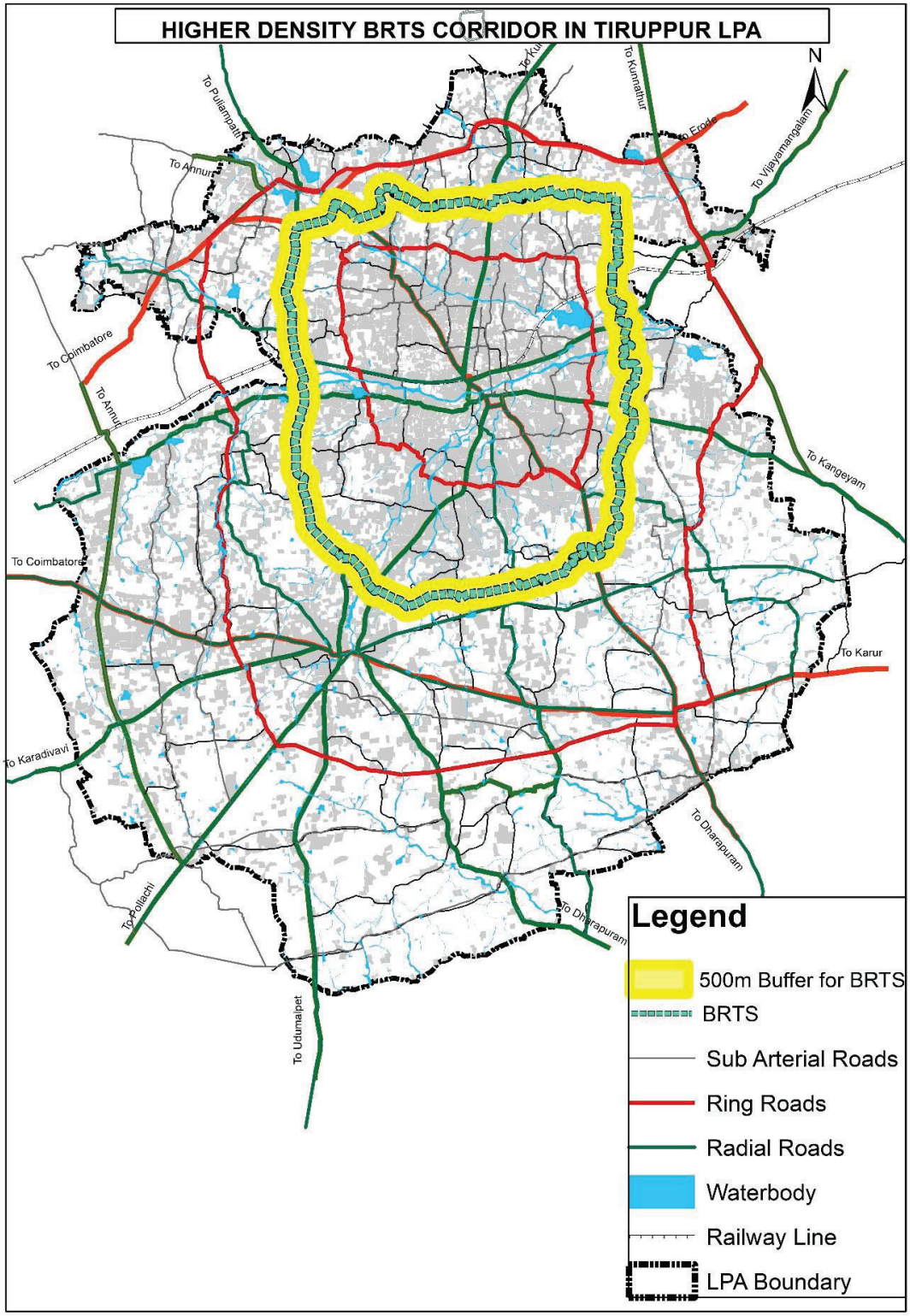
Integrate strategies to preserve and celebrate the cultural heritage of the area within vertical developments. This can involve incorporating historical elements or creating spaces for cultural events and activities.

Flexible Spaces:

Design flexible spaces that can adapt to evolving needs. This allows for a mix of uses over time, accommodating changes in demographics, economic activities, and lifestyle trends.

By incorporating these suggestions, city planners can create vertically developed urban spaces that are not only functional but also sustainable, inclusive, and resilient.

Vertical Development is proposed along the BRTS corridor as shown in the map below. FSI shall be increased above 2.00 in this corridor.



Map 61 Map showing the buffer for BRTS corridor for Vertical development

18.6 HOUSING SCHEMES

18.6.1 General Housing Schemes

Tiruppur LPA, like many growing regions, faces housing challenges due to population growth, urbanization, and varying income levels. Addressing these housing requirements and reducing the housing gap is crucial for ensuring equitable living conditions for all residents. Here are some housing requirements and schemes available for mitigating the housing gap in Tiruppur LPA:

1. Affordable Housing Projects:

The LPA can promote and facilitate the construction of affordable housing projects in both urban and rural areas. These projects can offer subsidized or low-cost housing options to economically weaker sections of society.

General Housing Schemes for the Urban Poor

a) General / Self-financing / Specific Registration Schemes of TNHB.

b) Incentive Schemes for the private sector

c) Housing under new township policy (proposed)

d) Rental housing

2. Slum Redevelopment:

Tiruppur has pockets of informal settlements. Implementing slum redevelopment schemes can provide improved housing and basic amenities to these communities, reducing slum areas and enhancing living conditions.

3. Pradhan Mantri Awas Yojana (PMAY):

Leveraging national schemes like PMAY, Tiruppur LPA can provide financial assistance to eligible beneficiaries for constructing or enhancing their houses. The scheme has components for urban and rural areas, making it versatile for the LPA's diverse needs.

4. Housing for Industrial Workers:

Given the significant presence of the textile and garment industry, providing housing for industrial workers can be a priority. The LPA can collaborate with industries to develop housing complexes or dormitories for workers, ensuring better living conditions.

5. Rental Housing Schemes:

Introducing rental housing schemes can be an effective way to provide housing options to those who cannot afford homeownership. The LPA can work with developers to create affordable rental housing units.

6. Integrated Township Projects:

Encouraging integrated township projects that include residential, commercial, and recreational areas can be a sustainable solution. These townships can accommodate a mix of income groups and provide a range of housing options.

7. Land Acquisition and Development:

The LPA can acquire land and develop housing colonies with proper infrastructure and amenities, ensuring access to clean water, sanitation, and healthcare facilities for residents.

8. Public-Private Partnerships (PPPs):

Collaborating with private developers through PPPs can expedite housing projects. These partnerships can result in the construction of affordable and quality housing units.

9. Housing Finance Assistance:

Facilitating access to housing finance through subsidies or interest rate reductions can make homeownership more accessible to lower-income families.

10. Empowerment through Awareness:

Conducting awareness campaigns about housing schemes and financial literacy programs can empower residents to make informed decisions about housing options and avail themselves of available schemes.

Addressing the housing gap in Tiruppur LPA requires a multi-pronged approach that considers the diverse needs of the population, from urban to rural areas. Collaborations with government agencies, private sector stakeholders, and community involvement will be essential in implementing these housing schemes effectively, ensuring that residents of all income levels have access to safe and affordable housing.

18.6.2 Housing for Migration Population

Providing adequate housing facilities for the floating population and migrant workers in Tiruppur Local Planning Authority (LPA) is crucial to address the unique housing needs of this demographic. Migrant workers often arrive in search of employment opportunities, and the floating population includes people who temporarily move to the city for various reasons. To accommodate their housing needs, several strategies can be considered:

1. Migrant Workers Hostels: Establish purpose-built hostels or dormitories equipped with basic amenities like beds, sanitation facilities, and communal kitchens. These hostels can provide affordable, temporary accommodation for migrant workers.

2. Affordable Rental Housing: Encourage the construction of affordable rental housing units that cater to the needs of the floating population. These units should be well-maintained, safe, and located in close proximity to areas with employment opportunities.

3. Temporary Housing Zones: Designate specific zones within the city for temporary housing, where mobile homes or container-based housing units can be set up to provide short-term accommodation for seasonal workers.

4. Transit Accommodation: Develop transit accommodation facilities at transportation hubs like bus and train stations, where migrant workers can find temporary shelter before finding more permanent housing.

5. Collaborative Partnerships: Partner with non-governmental organizations, private sector stakeholders, and community organizations to provide affordable and accessible housing solutions.

6. Housing Awareness Campaigns: Raise awareness among migrant workers and the floating population about available housing facilities and their rights. This can help them make informed decisions about their living arrangements.

7. Legal Protections: Ensure that migrant workers are aware of their legal rights and protections. Enforce anti-discrimination and housing regulations to prevent exploitation and unfair treatment.

8. Health and Hygiene Facilities: Provide access to clean water, sanitation facilities, and healthcare services within or near the housing facilities to ensure the well-being of the residents.

9. Security Measures: Implement security measures to ensure the safety of residents in these housing facilities. This can include well-lit areas, security personnel, and emergency contact systems.

10. Data Collection and Monitoring: Regularly collect data on the housing needs of the floating population and migrant workers to adapt and improve housing solutions over time. Monitor the conditions and safety of existing facilities.

By adopting a multi-pronged approach that includes the development of affordable, safe, and accessible housing options, Tiruppur LPA can better address the housing needs of the floating population and migrant workers, promoting social inclusion and supporting economic development in the region.

18.6.3 Housing for Slum Population

Addressing housing needs for the urban poor in Tiruppur Local Planning Area (LPA) requires a comprehensive and inclusive approach. Here are some strategies that can be considered for providing housing for the urban poor in Tiruppur:

Affordable Housing Initiatives:

Incentives for Developers: Provide incentives for private developers to invest in affordable housing projects, such as tax breaks, reduced development fees, or expedited permitting processes.

Public-Private Partnerships (PPPs): Foster partnerships between the public and private sectors to jointly develop affordable housing projects.

Social Housing Programs:

Government-Led Initiatives: Launch government-sponsored affordable housing programs that focus on the needs of low-income families.

Subsidized Housing: Provide financial subsidies or low-interest loans to eligible urban poor families to make homeownership more accessible.

Incremental Housing Approaches:

Incremental Construction: Support incremental housing solutions that allow residents to build and improve their homes gradually over time, adapting to changing needs and financial capabilities.

Community-Driven Development: Facilitate community-driven development projects where residents actively participate in decision-making and construction processes.

Mixed-Income Housing Projects:

Integration of Social and Economic Strata: Develop mixed-income housing projects that include units for both low-income and higher-income residents, promoting social integration and avoiding segregation.

Reserve Land for Affordable Housing: Identify suitable land within the Tiruppur LPA and allocate it for affordable housing development.

Zoning Regulations: Adjust zoning regulations to encourage the construction of affordable housing units in designated areas.

Infrastructure Development:

Basic Amenities: Ensure that affordable housing developments have access to basic amenities such as water, sanitation, electricity, and transportation.

Social Infrastructure: Develop community spaces, schools, and healthcare facilities to enhance the overall quality of life for residents.

Participatory Planning:

Community Consultations: Engage the urban poor community in the planning process to understand their needs, preferences, and concerns.

Inclusive Design: Design housing projects that cater to the cultural and social needs of the urban poor, with input from the residents.

Tenure Security:

Land Tenure Programs: Implement programs that provide secure land tenure for informal settlements, reducing the risk of forced evictions and promoting stability.

Legal Assistance: Provide legal assistance to residents to formalize land tenure arrangements.

Employment Opportunities:

Proximity to Job Centers: Develop affordable housing in proximity to employment centers, ensuring that residents have convenient access to job opportunities.

Skill Development Programs: Implement skill development programs to enhance the employability of residents, promoting economic sustainability.

Climate-Resilient Design:

Sustainable and Resilient Construction: Incorporate environmentally friendly and climate-resilient design principles in affordable housing projects.

Energy-Efficient Solutions: Integrate energy-efficient technologies to reduce utility costs for residents.

Monitoring and Evaluation:

Regular Assessments: Conduct regular assessments to evaluate the success of affordable housing programs and make necessary adjustments based on feedback and changing circumstances.

By adopting these strategies, Tiruppur LPA can work towards providing dignified and sustainable housing solutions for the urban poor, promoting inclusivity and socio-economic development.

19

ECONOMIC PLANNING

19 ECONOMIC PLANNING

19.1 EMPLOYMENT PROJECTION

At present, the Work Force Participation Rate (WFPR) for MC and Rest of MC is 47.5% and 51% respectively. It is likely to increase to 48% and 49% by 2031 and 2041 in MC area. The current employment in study area is 8.7 lakhs which is expected to increase to 11.2 lakhs by 2031. The employment data is compiled based on the census and household survey. The employment forecast thus obtained is presented in Table below.

Table 94 Employment Projection

TOWN/VILLAGES	2021	2031	2041
Tiruppur Corporation	5,35,469	6,95,232	9,13,293
Palladam (M)	46,147	63,247	79,381
Municipalities	62,652	83,544	1,06,738
Town Panchayats	49,515	60,890	82,071
Villages	2,22,852	2,77,499	3,43,070
Total	8,70,488	11,17,164	14,45,172

SOURCE – CMP for Tiruppur City Municipal Corporation

19.2 PROPOSALS

Tiruppur LPA, known for its thriving textile and garment industry, continues to evolve economically. As the region seeks sustainable growth and development, several new proposals in the economy sector aim to diversify economic activities, enhance employment opportunities, and ensure the well-being of its residents. Here are some noteworthy proposals:

- Trade Centre like Codissia Trade Centre will boost help all kind of industries to reach out to the vendors and other customers.
- Start ups will also get benefitted and it will bring more startups in Tiruppur increasing the employment.
- 4 nos of truck terminals are proposed on the periphery of the ring road, restricting the freight movement in the core area.
    - New Tiruppur, near Nethaji Appreal Park having a capacity for 75 trucks in area of 2.8 acres land owned by Government.

- Agraharaperiyapalyam along Uthukuli Road having a capacity for 75 trucks in area of 2.8 acres land owned by Government.
- Dharapuram Road, Near Pollikalipalayam having a capacity for 50 trucks in area of 1.9 acres land owned by Government.
- Vanjipalayam having a capacity for 150 trucks in area of 5.6 acres land owned by Private.

- All the industries are clustered around the proposed ring road enabling transportation of the goods and the radial roads extending along the ring roads connecting the major cities like Coimbatore, Erode, Salem, Trichy etc.

Promoting Export-Oriented Clusters:

- Leveraging Tiruppur's reputation as the "Knitwear Capital of India," the plans to establish export-oriented clusters specializing in niche textile and apparel segments shall be established. These clusters will encourage innovation, increase exports, and generate employment, positioning Tiruppur as a hub for high-value garment production.

Skill Development Centers:

- To address the evolving needs of the workforce and industries, skill development centers will offer training in advanced manufacturing techniques, digital technologies, and sustainable practices, ensuring a skilled workforce that meets the industry's demands.

Agri-Entrepreneurship Programs:

- Recognizing the importance of agriculture in rural areas, the LPA will launch agri-entrepreneurship programs. These initiatives will support farmers in adopting modern techniques, diversifying crops, and accessing markets for their produce, thereby boosting rural incomes.

Start-up Incubators:

- Encouraging entrepreneurship and innovation, start-up incubators in urban and semi-urban area will provide mentorship, infrastructure, and access to funding to nurture new ventures, especially in technology and e-commerce.

Tourism Development:

- To tap into the potential of tourism, Tiruppur LPA will promote eco-tourism and heritage tourism. Initiatives will include the development

of scenic spots, heritage sites, and eco-friendly accommodations, creating jobs and boosting local economies.

Infrastructure Investment:

- The prioritization should be given for infrastructure development, including improved road networks, transportation systems, and logistics hubs. These enhancements will facilitate the movement of goods and services, making Tiruppur even more attractive for businesses.

Sustainable Practices:

- Sustainability is at the core of Tiruppur's future plans. Industries need to be encouraged to adopt eco-friendly manufacturing practices, renewable energy sources, and waste reduction measures to ensure long-term environmental sustainability.

MSME Support:

- Recognizing the significance of Micro, Small, and Medium-sized Enterprises (MSMEs) in employment generation, financial incentives, easy access to credit, and a conducive business environment to foster the growth of MSMEs will increase employment opportunities.

Research and Development Centers:

- To stimulate innovation and technological advancement, research and development centers, focusing on textiles, fashion technology, and sustainable manufacturing processes should be established,

These proposals reflect Tiruppur LPA's commitment to holistic economic development, emphasizing innovation, sustainability, and inclusivity. By diversifying economic activities and nurturing entrepreneurship, the region aims to achieve sustainable and equitable growth in the years to come, ensuring prosperity for all its residents.

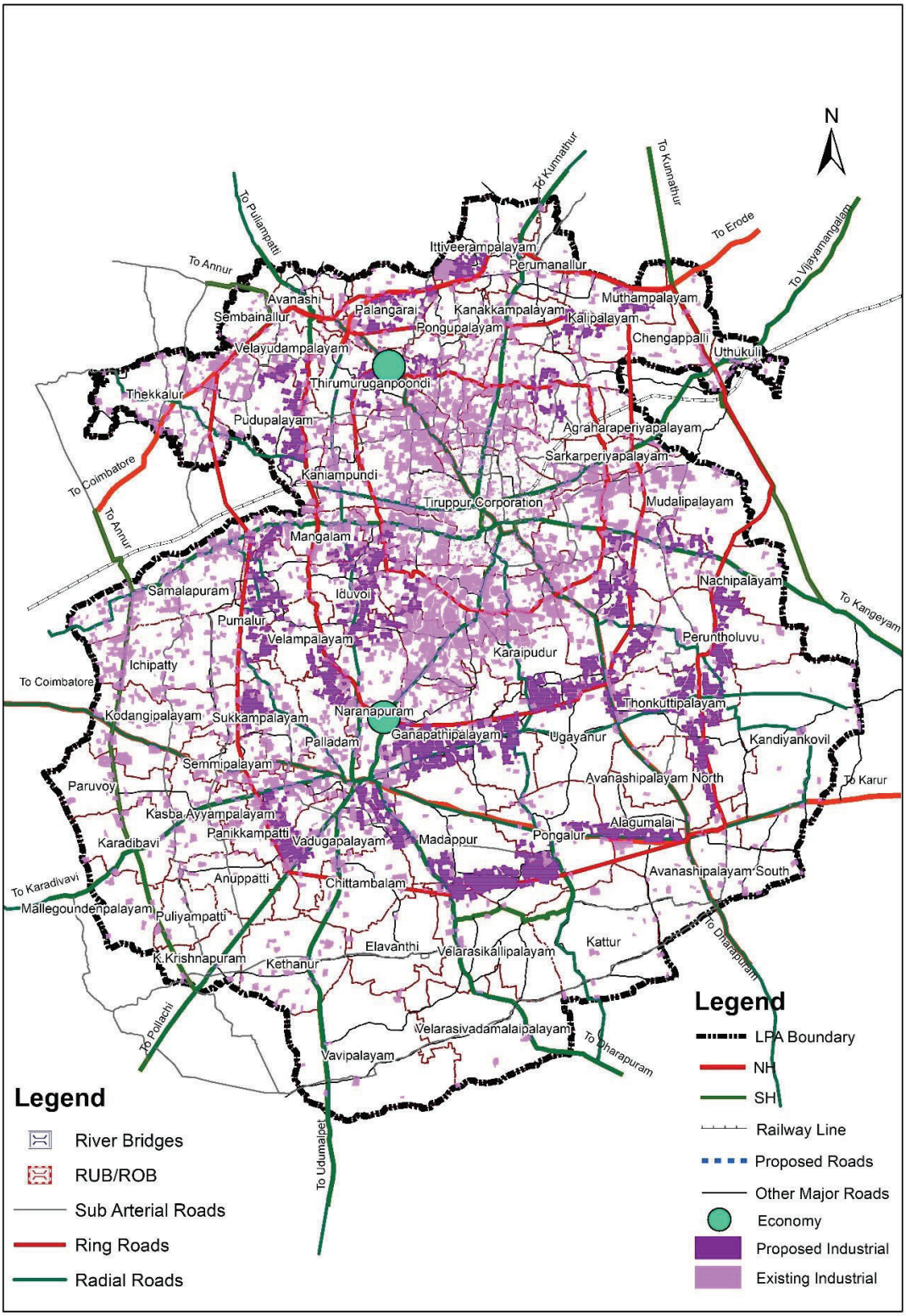
- Common facility centre for knitwear cluster at Naranapuram at a cost of 15.34 crores proposed in 2022 by the state government.
- The knitwear hub of Tiruppur will house the first 'TIDEL Neo' in Tamil Nadu. 'TIDEL Neo' is creating 'mini' IT parks with an area of 50,000 to 1 lakh square feet in Tier 2 and Tier 3 towns with an aim to introduce the services sector across the state.

- The IT park proposed in a built up area of 60,000 square feet will be a ground floor + 7 floors facility at Thirumuruganpoondi in Tirupur, which will be constructed at a financial outlay of Rs 32 crores.

19.3 SHORT, MID AND LONG TERM PROPOSALS – ECONOMIC PLANNING

Table 95 Proposals – Economic Planning

	SHORT TERM PROPOSALS	MEDIUM TERM PROPOSALS	LONG TERM PROPOSALS
Economy	**Skill Development Centres** in areas crucial to the textile industry and other emerging sectors.	**Technology parks** that focus on fostering innovation and technological advancements in key industries	Development of **large-scale renewable energy projects** to meet long-term sustainability goals.
	Construction of Tidel NEO Park @ Thirumuruganpoondi, Knitwear Cluster @ Naranapuram.	Establishment of a **Trade Centre** can bring about several benefits, contributing to the economic development and competitiveness of the region.	



Map 62 Proposed Economy, Tiruppur LPA

20

PROPOSALS IN MOBILITY

20 PROPOSALS IN MOBILITY

20.1 PROPOSED ROAD NETWORK IN TIRUPPUR LPA

Ring Road for Tiruppur

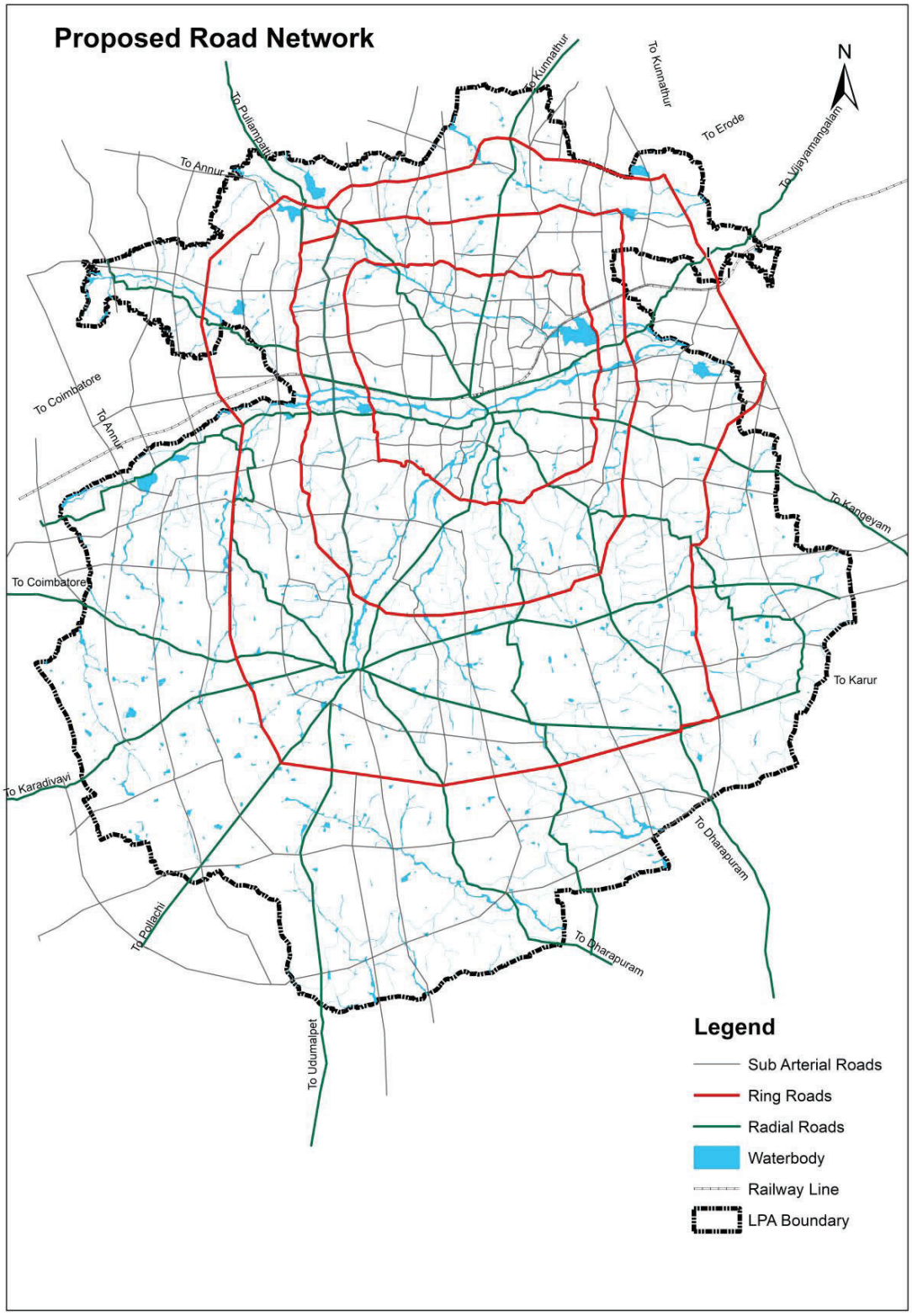
Tiruppur city have a well developed radial roads with partial ring connectivity because of various constraints, due to which the traffic which could be bypassed is entering the city core and causing congestion. Strengthening of ring road for Tiruppur city is of prime importance for diverting traffic at the entry point of the city.

Palladam is connected with Coimbatore, Kerala and other districts of Tamil nadu. Majority of traffic reaching Palladam junction are external traffic, providing bypass road will ease congestion at major junctions.

Bypass section between Kamanaikenpalayam and Koduvai will provide inter connectivity between Palladam-Pollachi highway, Palladam-Udumalpet road, Palladam-Dharapuram road and Tiruppur Dharapuram road.

- Ring roads shall be provided with service lanes in order to minimise interaction of vehicles entering the ring road and bypass roads from adjacent roads.

  Ring Roads – 3 rings are proposed connecting the Radial pattern of the Tiruppur Road network with Width ranging from 30m – 50m.
- Radial Roads – Radial roads are the arterial Roads that connects Tiruppur and its to nearby settlements with its width ranging from 24m – 30m
- Sub Arterial Roads – Roads that distributes traffic to lower level with its width ranging from 15m – 24m



Map 63 Map Showing Proposed Road Network in Tiruppur LPA

20.1.1 Cross section of the roads

60 ft Road Cross section having 4 lane divided carriage way with 2m cycle track and 1.8m foot path on both sides, 0.6m median separating the lanes.

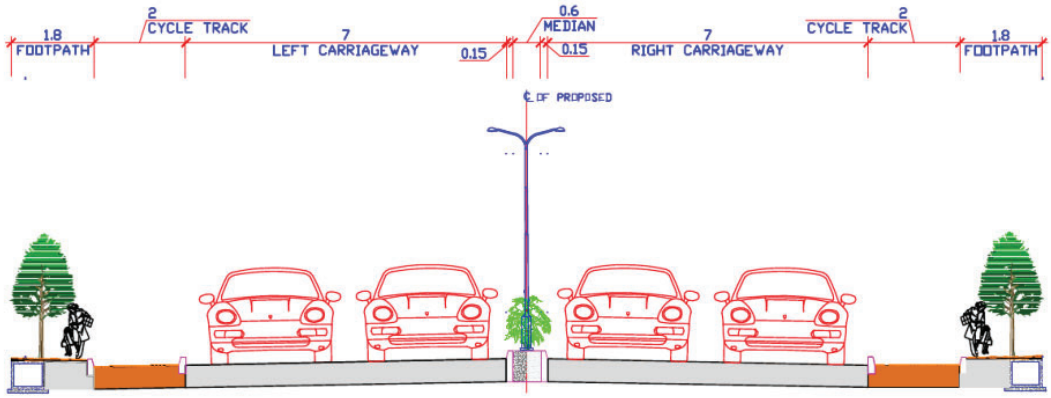


Figure 34 Proposed 60ft road cross section

80 ft Road Cross section having 6 lane divided carriage way with 2m cycle track and 1.8m foot path on both sides, 0.6m median separating the lanes.

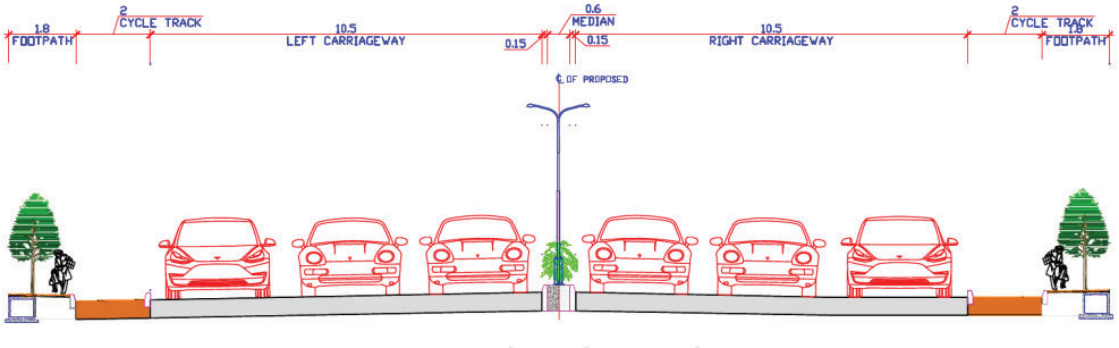


Figure 35 Proposed 80ft road cross section

20.1.2 Utility Shifting in the major roads –

Utility shifting, also known as utility relocation or diversion, refers to the process of moving or repositioning underground utility lines and infrastructure, such as water pipes, gas lines, electrical cables, and telecommunication conduits, to accommodate road construction or expansion projects.

This critical step is essential for the safety of both the construction process and the long-term functionality of the road. By relocating utilities, it reduces the risk of damage, disruption, and accidents during road construction, and

it ensures that the utility infrastructure remains accessible for maintenance and repair. Properly executed utility shifting contributes to the overall efficiency and safety of road development and minimizes the inconvenience caused to the community.

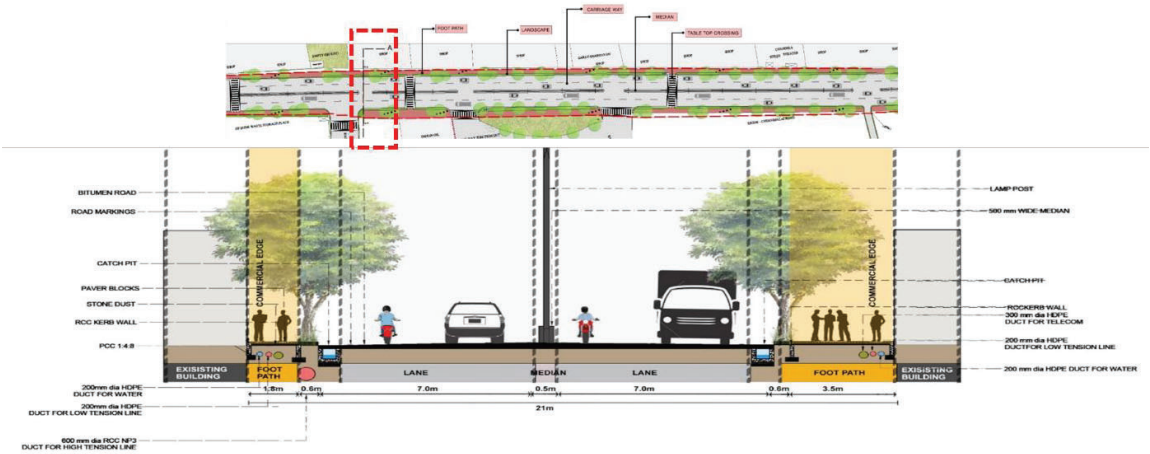
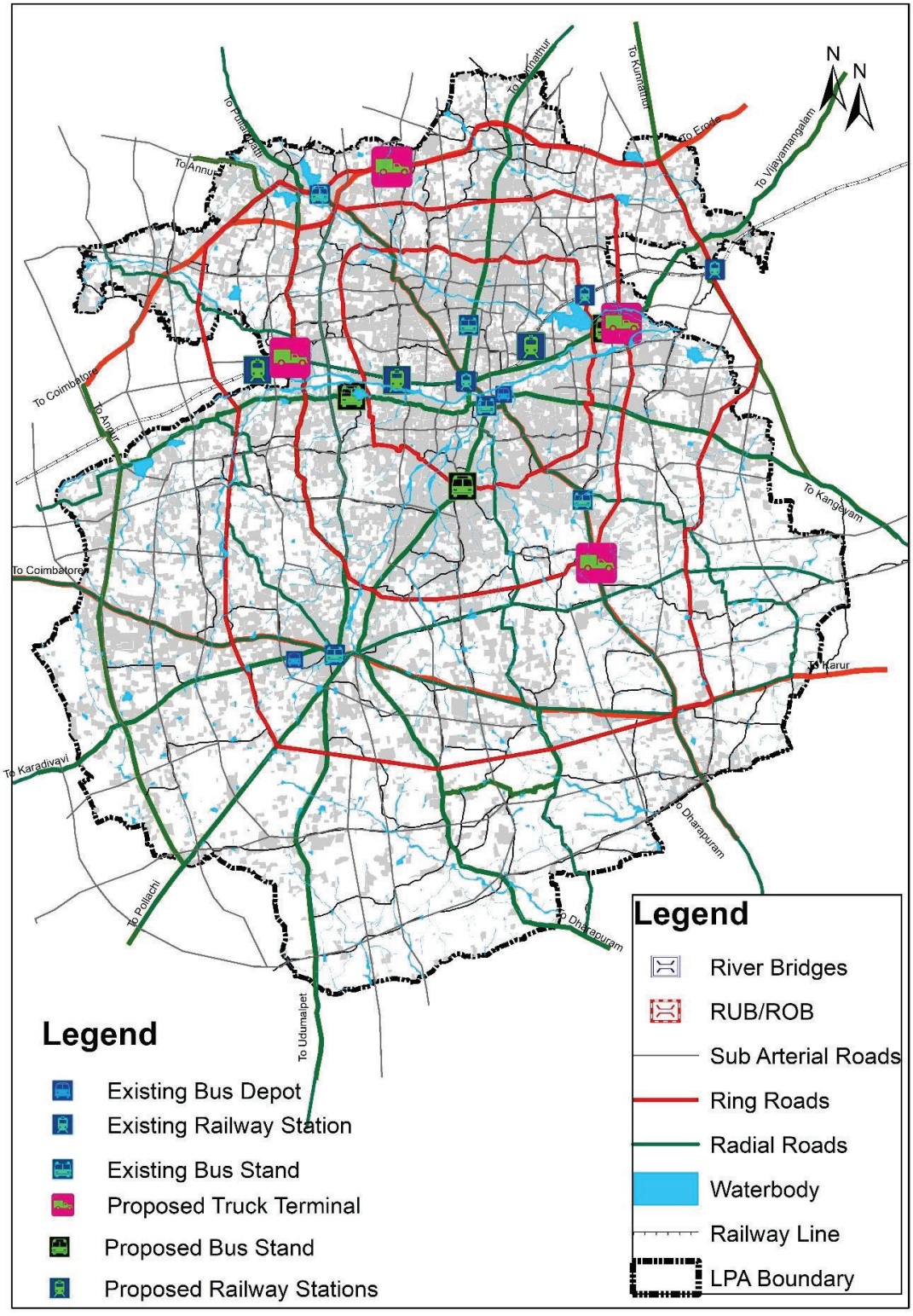


Figure 36 Proposed road cross section

20.2 TERMINALS PROPOSAL IN LPA

- 4 Truck Terminals are proposed along the ring roads reducing the goods traffic in the core area of the town.
- 3 new bus stands and 1 Bus Depot is proposed for decentralizing the Bus stands in the core LPA.
- Existing Tiruppur Railway Station is proposed to be revamped for a cost of 22 crores
- 2 New Railway Stations are proposed to be constructed increasing the possibility of Suburban Transit System along the Coimbatore – Salem Railway Corridor.



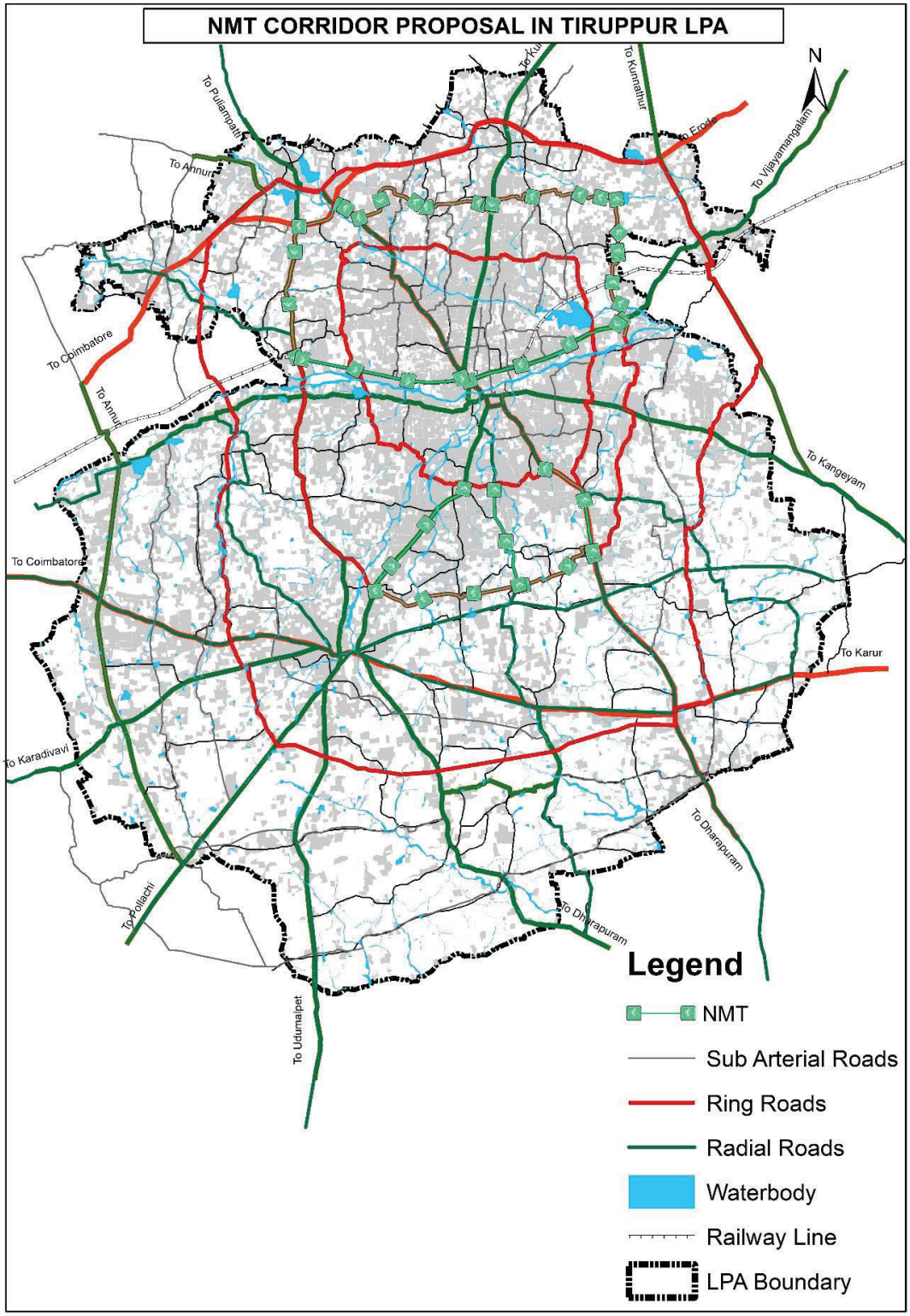
Map 64 Map Showing Proposed Transportation facilities in Tiruppur LPA

20.3 NMT CORRIDOR

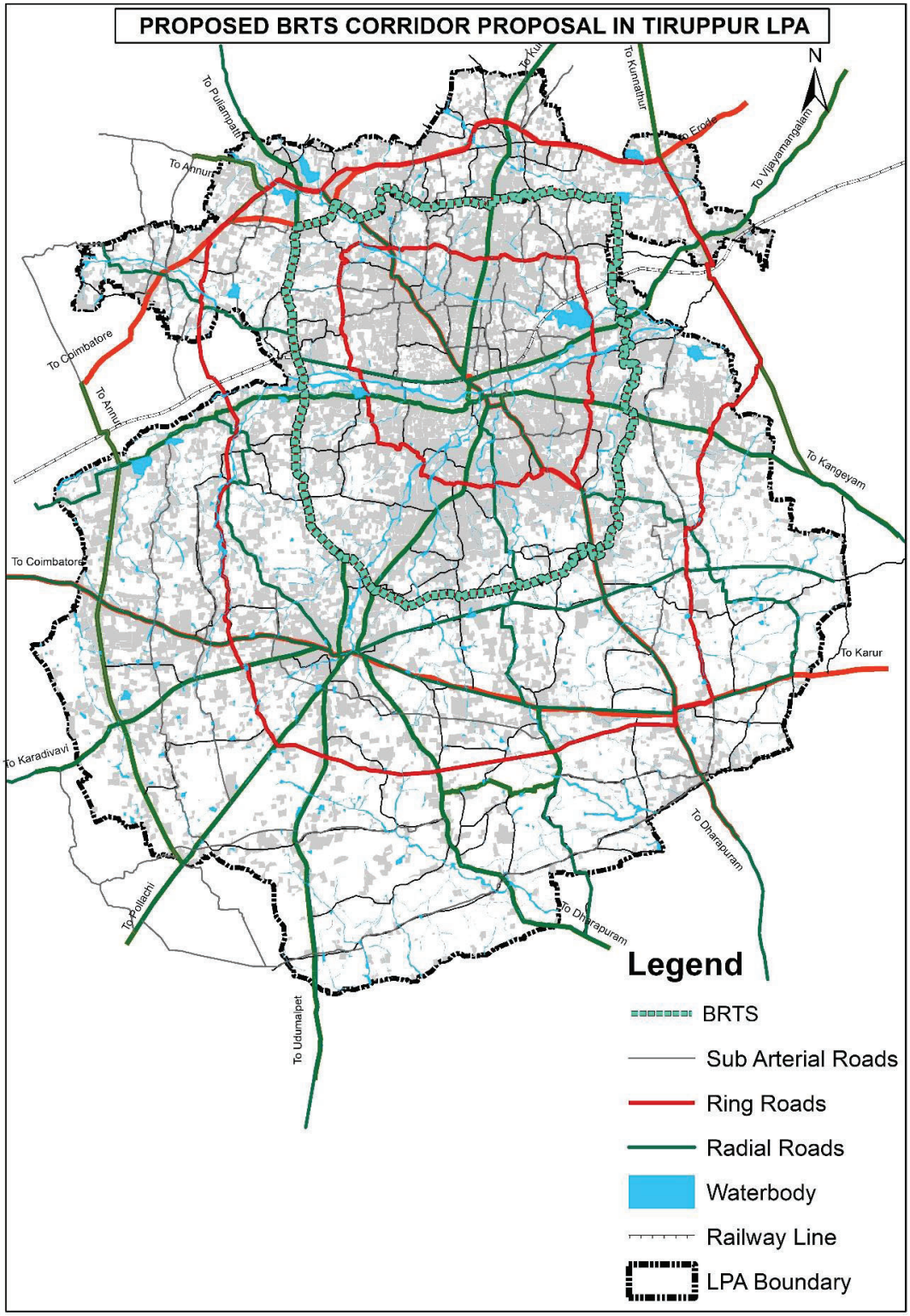
The proposal for a Non-Motorized Transport (NMT) corridor along both the 2nd Ring Road and the Noyyal River in Tiruppur signifies a comprehensive approach to sustainable urban mobility. The envisioned NMT corridor on the 2nd Ring Road, with its ample width of 150 feet, aims to create a pedestrian and cyclist-friendly environment, promoting healthier and eco-friendly modes of transportation. Simultaneously, the NMT corridor along the Noyyal River emphasizes the preservation of the city's natural assets while providing an alternative and scenic route for non-motorized transport. These initiatives align with the broader goal of fostering sustainable, accessible, and environmentally conscious urban mobility in Tiruppur.

20.4 BRTS CORRIDOR

The proposed Bus Rapid Transit System (BRTS) in Tiruppur is a strategic initiative aimed at enhancing the city's urban transportation infrastructure. The plan focuses on implementing a BRTS corridor along the 2nd Ring Road, utilizing its substantial width of 150 feet. This proposed BRTS project aims to alleviate traffic congestion, improve public transportation efficiency, and provide a sustainable and streamlined commuting experience for residents. The 2nd Ring Road's width allows for dedicated BRTS lanes, ensuring a smooth and reliable transit system that contributes to the overall development and modernization of Tiruppur's transportation network.



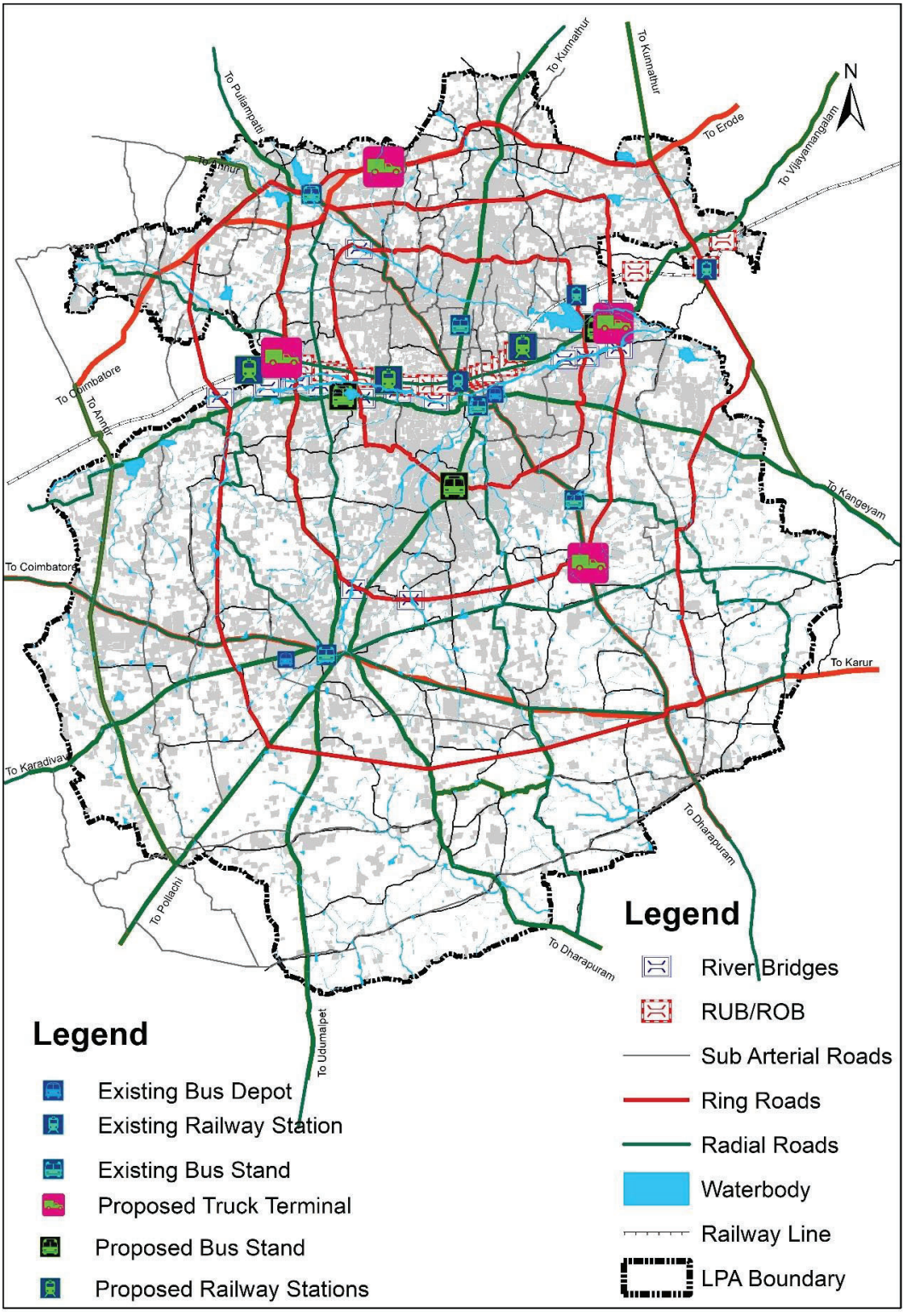
Map 65 Map Showing NMT corridor in Tiruppur LPA



Map 66 Map showing BRTS corridor in Tiruppur LPA

20.5 NORTH SOUTH CONNECTIVITY

- Road over Bridge, Road Under Bridge are Proposed along the railway line alignment
    - 13 Road Under Bridge are proposed to be widening
    - 5 Road Over Bridge are Proposed to be Widening
- River Bridges are proposed along the Noyyal River for Ring roads, Radial Roads and Sub Arterial Road to reduce the additional travel distance



Map 67 Map Showing Proposed Bridges in Tiruppur LPA

20.6 SUMMARY OF MAJOR PROPOSALS

Road Pattern

- Ring 1 – 60 ft road (Thirumuruganpoondi, Andipalayam, Chettipalayam, Neruperichal)
- Ring 2 – 150 ft road (Sullikadu, Avanashi, Goundampalayam, Polikalipalayam)
- Ring 3 – 100 ft road (Chengapalli, Thekkalur, Chitambalam, Avinashipalayam)
- Widening of Radial Roads – SH Roads
- Sub Arterial Roads - distributes traffic to lower level

4 Proposed Truck Terminals

- T1 - Agragaraperiyapalayam
- T2 - Polikalipalayam
- T3 - Nethaji Apparal Park
- T4 - Vanjipalayam

3 Proposed Bus Stand with depot

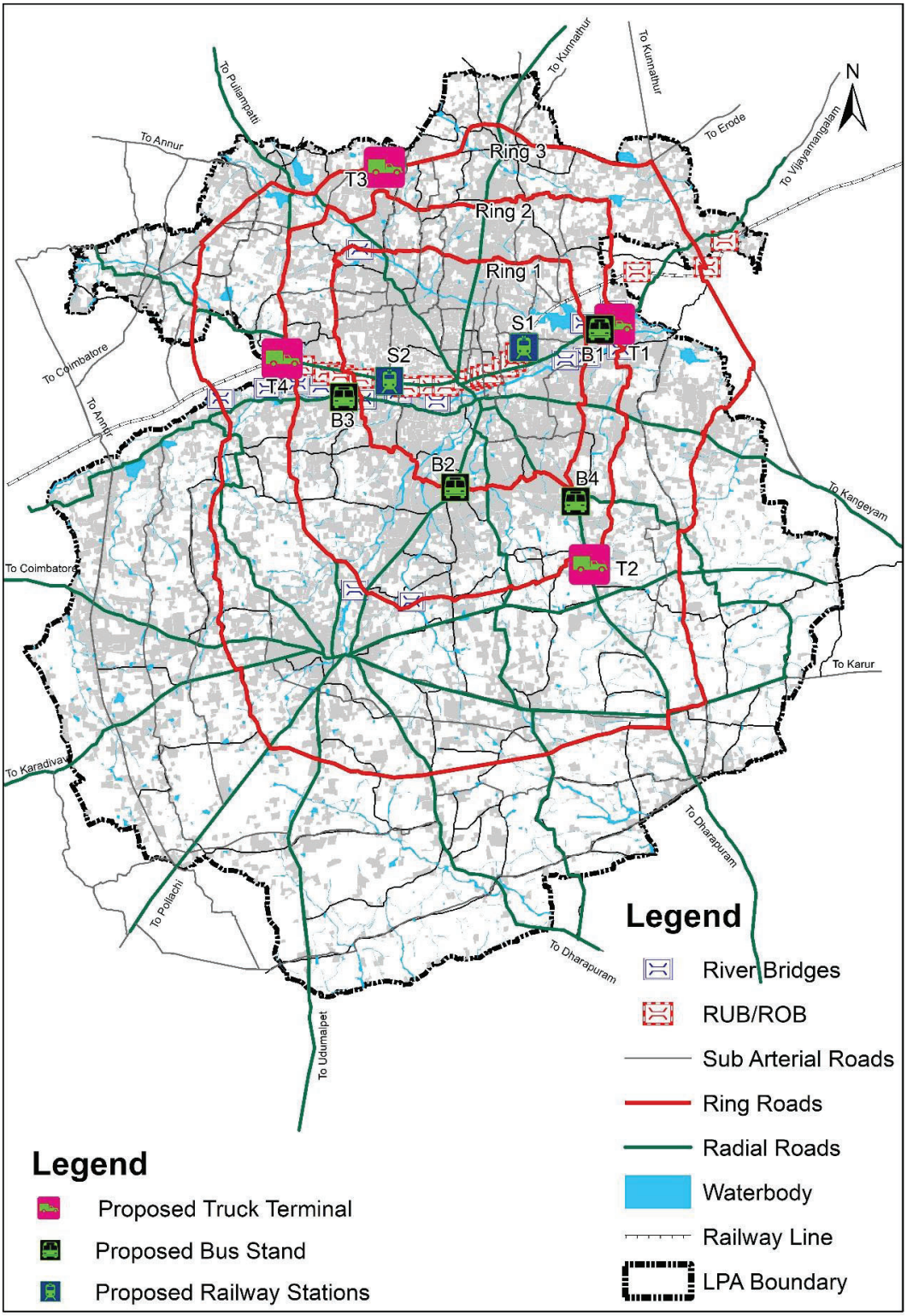
- B1 - Agragaraperiyapalayam
- B2 - Veerapandi Pirivu
- B3 - Kulathuputhur

1 Proposed Bus Depot

- B4 - Kovil vali

2 Suburban Transit Station

- S1 – Mannarai
- S2 - Sirupooluvatti


N
To Pullampatti
To Annur
To Kunnathur
To Kunnathur
To Erode
To Vijayamangalam
Ring 3
Ring 2
Ring 1
T3
S1
B1
T1
S2
T4
B3
B2
B4
T2
To Coimbatore
To Anniti
To Coimbatore
To Kangeyam
To Karur
To Karadivav
To Dharapuram
To Pollachi
To Dharapuram
To Udumalpet
Legend
Proposed Truck Terminal
Proposed Bus Stand
Proposed Railway Stations
Legend
River Bridges
RUB/ROB
Sub Arterial Roads
Ring Roads
Radial Roads
Waterbody
Railway Line
LPA Boundary

20.7 PROPOSALS ADOPTED FROM CMP

Short Term Proposals

1.Public Transport Improvement Plan

- Public Transport Route Improvements
- Bus Shelters
- Station area Traffic Improvements

1.Road Improvement Plan

- Road Surface Condition
- Signages and Markings
- Street Lightings

1.NMT Improvement Plan

- Footpath
- Grade Separated Pedestrian Facilities
- Bicycle Tracks
- Pedestrian Priority Streets
- Pedestrian Only Streets

1.Mobility Management Plan

- Parking Management
- Traffic Calming Measures
- Signalisation of Junction
- Encroachment Management
- Junction Improvement

Medium Term Proposals

1.Public Transport Improvement Plan

- Bus Terminals and Depots
- High Frequency Bus Routes
- Multimodal Integration

1.Road Network Development Plan

- Grade Seperators and Flyovers at Junctions
- Development of New Links
- ROB/RUB

1.Mobility Management Measures

- Off street Parking
- Traffic Management
- IPT Management

1.Freight Management Plan

Long Term Proposals

1.Integrated Landuse and Urban Mobility Plan

2.Transit Oriented Development

3.Road Network Development Plan

- Ring Road for Tiruppur City
- Byepass road for Palladam

1.Public Transport Improvement Plan

1.Suburban Commuter Rail

2.Mass Transit System

20.8 SHORT TERM PROPOSALS

20.8.1 Public Transport Improvement Plan

- Public Transport Route Improvements

It is observed that the locations with higher population and employment density are having good public transport coverage. However, frequency of bus services needs to be improved within the city as well as to the towns in LPA. Following sub urban areas within LPA needs to be connected with Tiruppur city with high frequency bus services.

- Uthukuli, Chengapalli (Towards Uthukuli)
- Vijayapuram, South Nallur, Muthalipalayam (Towards Kangeyam)
- Semmipalayam (Towards Palladam)
- Avinashi
- Pandiyan Nagar, Anna Nagar, Samathuvapuram (Towards Perumanallur)
- Bus Shelters

In urban areas, it is imperative to provide bus stops at regular interval of 500 m on all bus routes. Some of the general guidelines for locating bus shelters are listed below:

• Bus shelters should be located 75 m from the intersection preferably on the further side of the intersection (IRC 86-1983)

• Wherever possible bus bays shall be built (if required with acquisition of land). This will help in smooth flow traffic and enhance the traffic handling capacity of road.

• A safe distance should be provided between the bus shelter and the kerb for free passenger movement for boarding and alighting.

Based on the site visit and Road network inventory data, It is observed that absence of bus shelters in most of the bus stops mainly on Avinashi Road, Perumanallur Road and College Road. The map showing the bus stops with and without shelter is presented in Figure 9-8. As per the URDPFI guidelines, the spacing between bus stops within urban area shall be 400m and in rural areas it shall be 800m.

- Station area Traffic Improvements

20.8.2 Road Improvement Plan

- Road Surface Condition

Due to on-going sewer line piping project most of the roads surface condition are observed to be poor. Relaying of roads also observed in the study area once the drain lines are fixed. The surface condition of urban roads has to be improved for better traffic flow during peak hours. Based on the road inventory survey, about 235 Km of roads within TCMC and 135 Km of roads in rest of LPA requires road surface overlay. Consultants have prioritised the roads requiring overlay immediately based on the traffic intensity. About 28 Km of roads within TCMC and 8 Km of roads in rest of LPA requires road surface overlay on priority. Roads identified for surface improvement within LPA is shown in Figure 9-9 and roads requiring surface improvement on priority is shown in Figure 9-10.

- Signages and Markings

Road markings, signages and street lighting pave way to safe road operations. Based on the road inventory and reconnaissance study carried out by the Consultants, some road stretches have been identified where road markings, signages and lighting were lacking. These roads provide space for mixed traffic including pedestrians and other non-motorized modes.

Road markings and signages form an integral part of Road Design for safe operations. Lack of visible markings often leads to indiscipline driving behavior. The presence of road markings and a rational use of precise traffic signage system help in proper use of the available ROW. It also helps in inculcating traffic sense and has been found to influence the driver behavior significantly.

About 15 Km of roads has poor sign boards and about 40% (1029 Km) of roads do not have any sign boards in the study area. Road markings are not available in about 68 Km of road stretches and about 280Km of roads have poor road markings. The Proposed Road markings and signages for road sections in Tiruppur LPA are presented in Figure 9-11 and Figure 9-12.

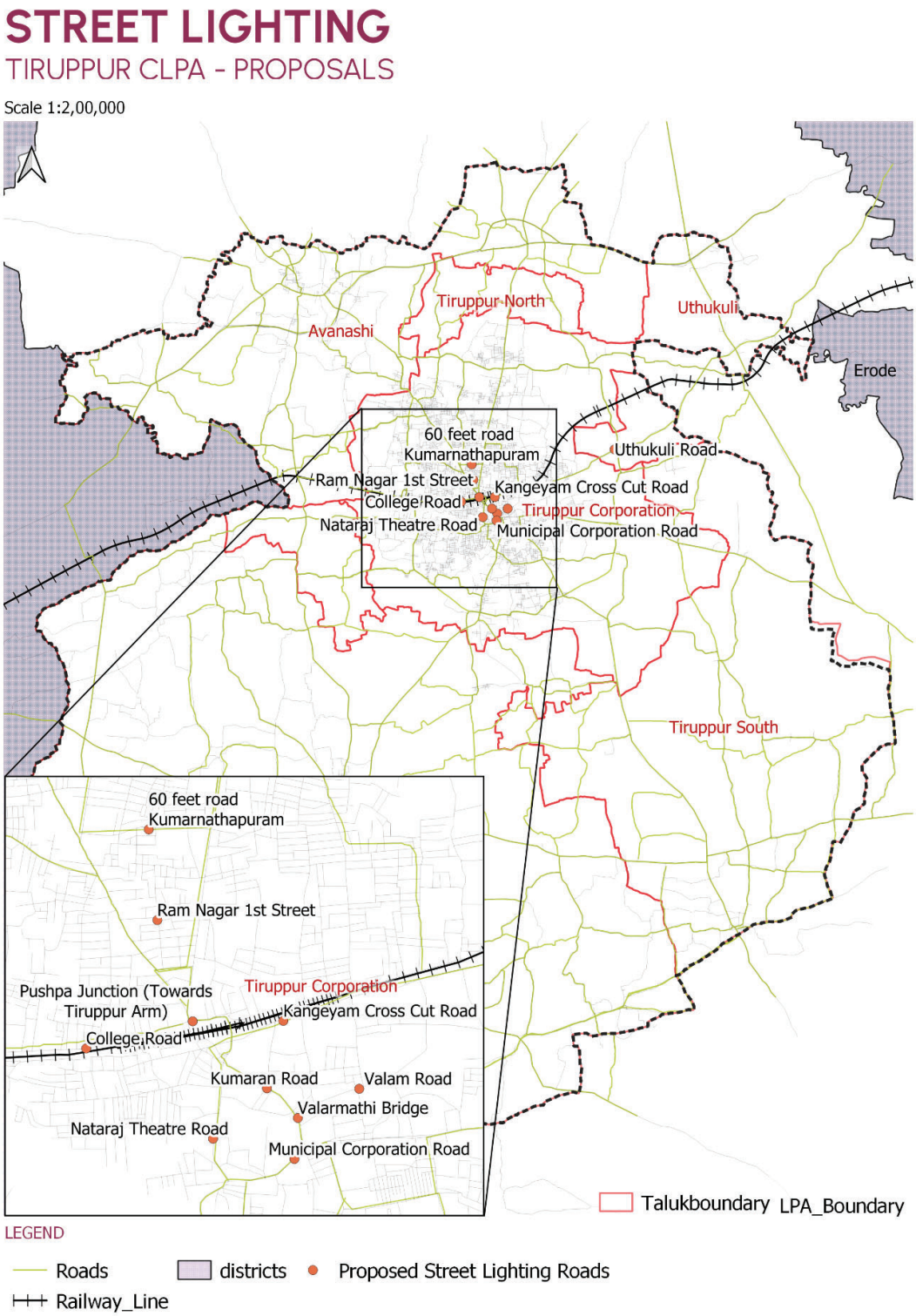
Major radial roads in Tiruppur do not have proper sign boards and majority of radial roads have poor road markings. Similarly, majority of State Highways in Palladam do not have sign boards and have poor road markings.

- Street Lightings

Based on the light meter survey observations for major roads within Municipal Corporation area, it is observed that the luminance level has not achieved as per standards. This is due to poor intensity of light and absences of continuous street lighting. Consultants propose improvement of street lighting on the following roads and the same is preseneted in Table 9-5.

Further consultants propose solar based LED street lighting as a ecofriendly street lights. The key features of the solar based LED streetlights are Solar panel, inbuilt lithium-ion batterires, battery management system and passive infrared censors. These streetlights are weatherproof, water resistant, has low insect attraction rate and low glare and has longer life. The main innovation of modern solar streetlights is the battery management system which is facilitated by the presence of night and motion sensors.

When people are within a certain radius away from the light, it automatically turns to its full brightness. This smart feature makes solar street lights device a perfect combination of renewable energy and energy efficiency.



Map 68 Proposed Street Lighting, Tiruppur LPA

20.8.3 NMT Improvement Plan

Non-Motorized transport (also known as active transport and human powered transport) includes walking, cycling etc., Walking and cycling are the most sustainable modes of transport.

Non-motorized modes are important on their own, right now 39% of the trips are made by walk and cycle in the study area of which 34% are walk trips. Further, all the public transport trips start and end with walk trips. The bicycle trip share at present is small (5%) due to lack of exclusive bicycle infrastructure, longer trip lengths and unsafe street conditions.

As per the road network inventory survey, it is found that there are no proper footpath facilities available as per standards in the study area. Various measures will be followed under NMT improvement plan to provide better infrastructure for Non-Motorised Transport in the study area.

- Footpath

• At important busy roads and Junctions railing should be provided to prevent spilling of pedestrians on the carriageway

• Footpaths should be kept free from utilities and shops such as STD booths, electric poles, dustbins, telephone chambers, parking and hawking activities etc., • Signage and markings will encourage pedestrian to use pedestrian facilities and should be provided near important transport terminals, major traffic generators i.e. commercial areas, educational institutions, hospitals etc.,

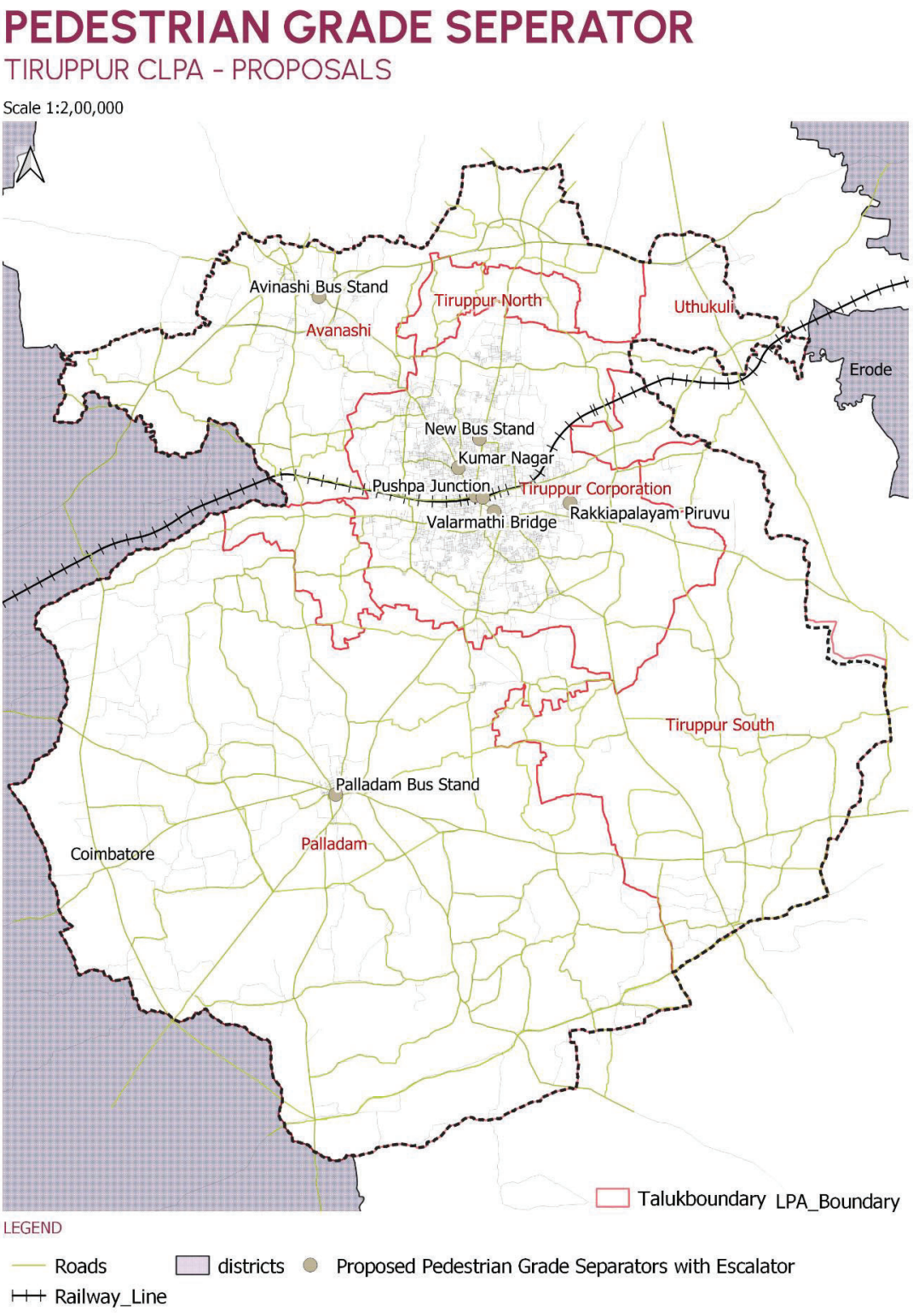
• Footpath should be developed on both sides of road. The corridors which are currently having footpath only on one side and footpaths having width less than 1.5 meter has to be considered for widening (if ROW permits).

• Curb height for all existing and proposed footpaths needs to be maintained as 150 mm as curb height more than 150 mm discourages pedestrians to use footpath.

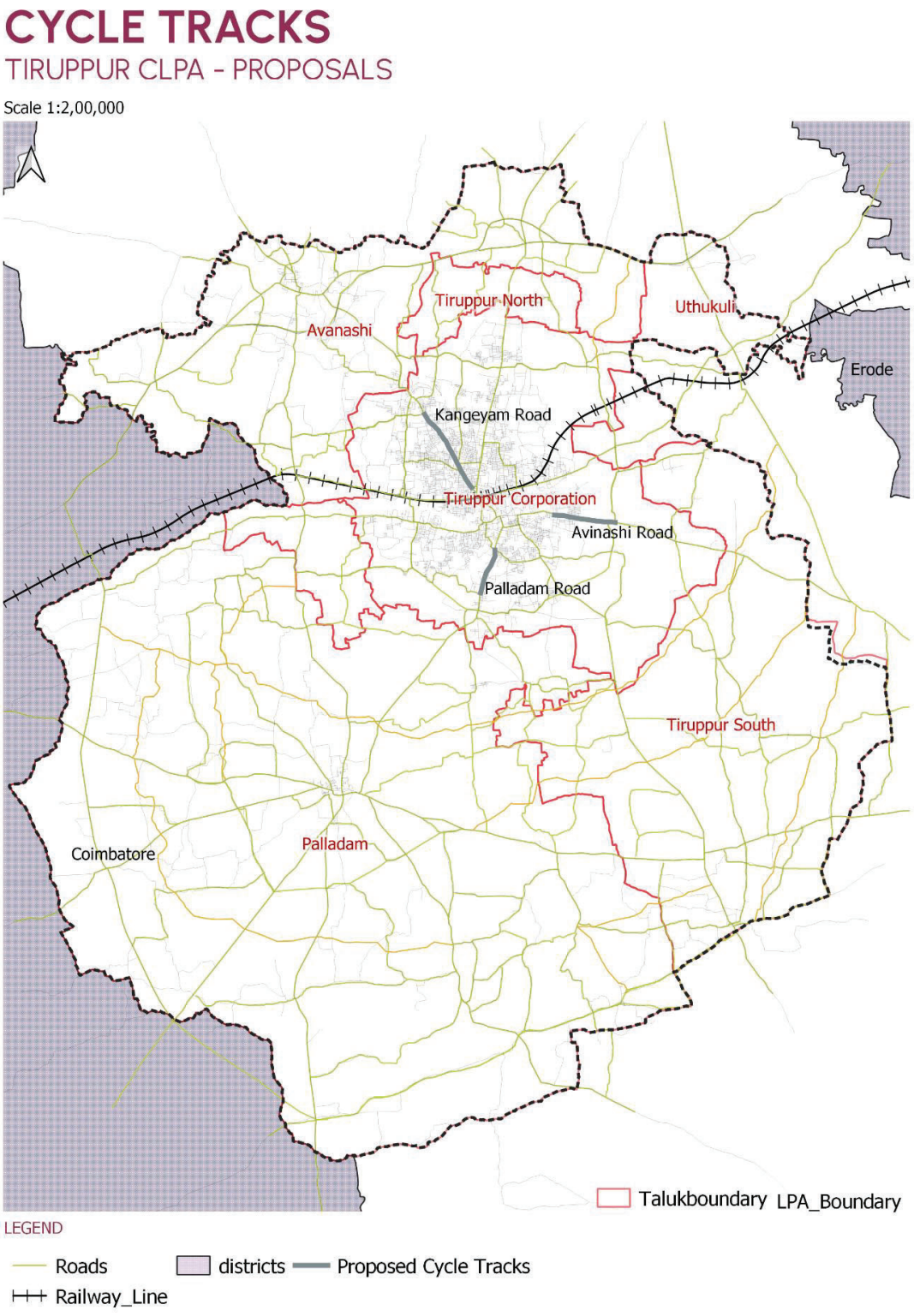
- Grade Separated Pedestrian Facilities

Providing grade separated pedestrian crossing is an efficient way of improving safety for pedestrians, particularly at locations with high traffic volumes or on the corridors having larger widths. Following criteria is considered for provision of grade separated pedestrian facilities.

- Busy and wide junctions with many arms where distance to be covered by pedestrian to cross the road is more
- Mid-block sections of major roads where the traffic speed and crossing pedestrian traffic is high



Map 69 Proposed Pedestrian Grade Separator, Tiruppur LPA



Map 70 Proposed Cycle Tracks, Tiruppur LPA

- Pedestrian Priority Streets

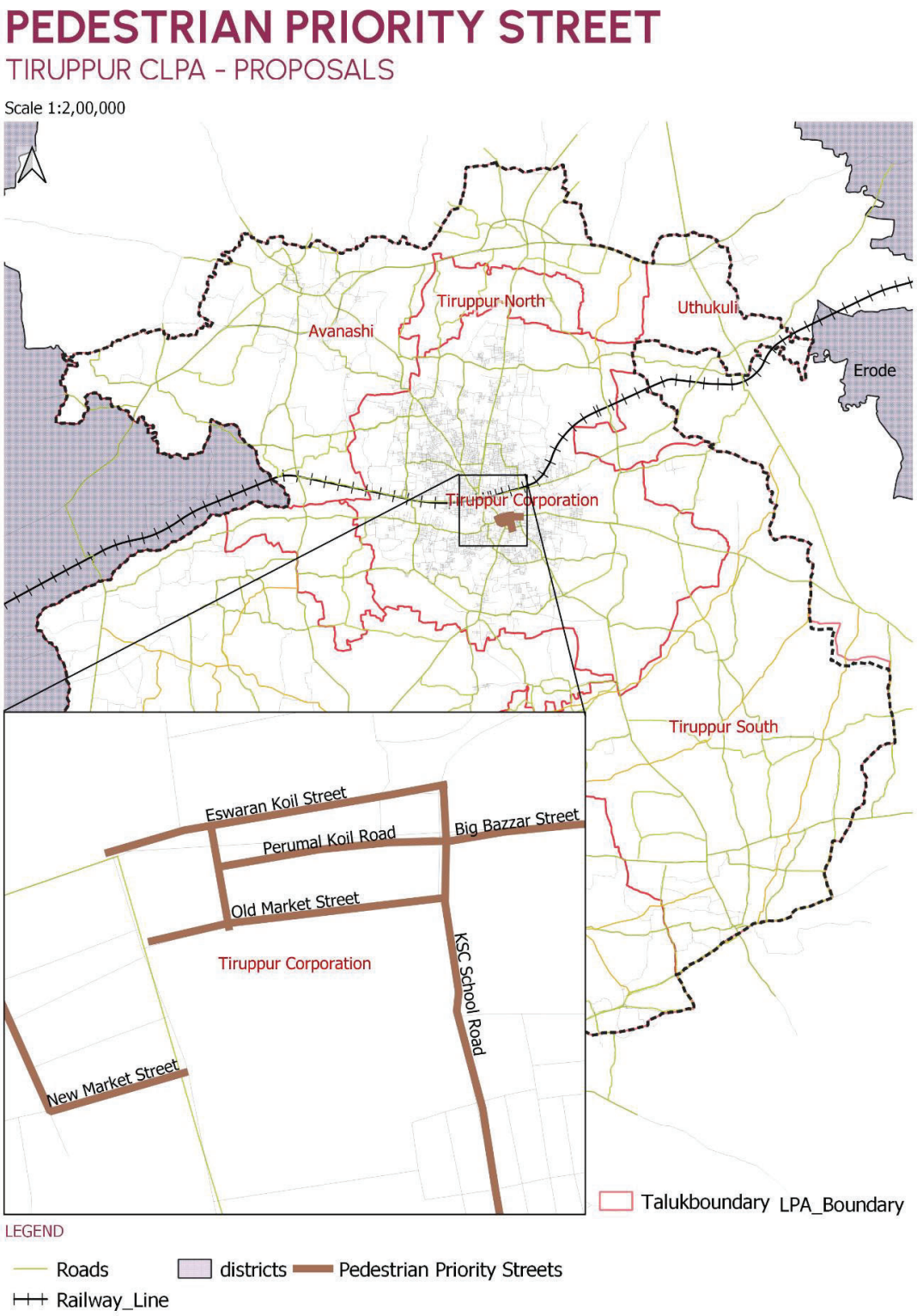
Pedestrian priority streets are a step forward in this direction wherein emphasis is given more on enjoying walking and cycling and discouraging vehicular movement. Such streets will have wide, high quality and well-maintained footpaths with recreational activities for all age groups of citizens.

• Minimum space is allocated for vehicular movement and if required based on the availability of alternative road network one-way schemes can be suggested for vehicular movement.

• Parking is to be discouraged on such streets or one side only allowed on such streets as long as it does not affect the pedestrian flow.

• Boost the allied business and provide new sources of revenue for the citizens or ventures that can operate and maintain them.

• Traffic calming measures need to be installed along and around approaches of such streets



Map 71 Proposed Pedestrian Priority Streets, Tiruppur LPA

- Pedestrian Only Streets

Eswaran Koil Street and New Market Street are proposed as vehicle restricted zones where only pedestrian movement is allowed. Map showing the vehicle restricted zones, vehicle circulation pattern is presented in the Figure 9-22.

Off-street parking facilities need to be developed in the nearby areas where people can park the vehicle and access the pedestrian zones easily. The details of the roads proposed for Pedestrianisation (Vehicle free zone) in the Study Area are presented in Table 9-13

Pedestrianisation of roads involves implementing following measures:

- Improving roads with pedestrian friendly streets
- Identifying potential locations for vehicular parking outside the pedestrian zones
- Parking management strategies on roads connecting the proposed pedestrian zones
- Creating public spaces with circulation and seating areas etc
- Organizing and regulating street vending
- Providing street furniture
- Improving signages and road markings
- Restriction on Loading/ Unloading activities during the day and shall be allowed late evenings/ during nights and early mornings
- The benefits of pedestrianisation are:
- Relives congestion on busy commercial streets
- Streets become safe for pedestrians
- Encourages walking
- Accessibility to business improves
- Reduced environmental pollution

20.8.4 Mobility Management Plan

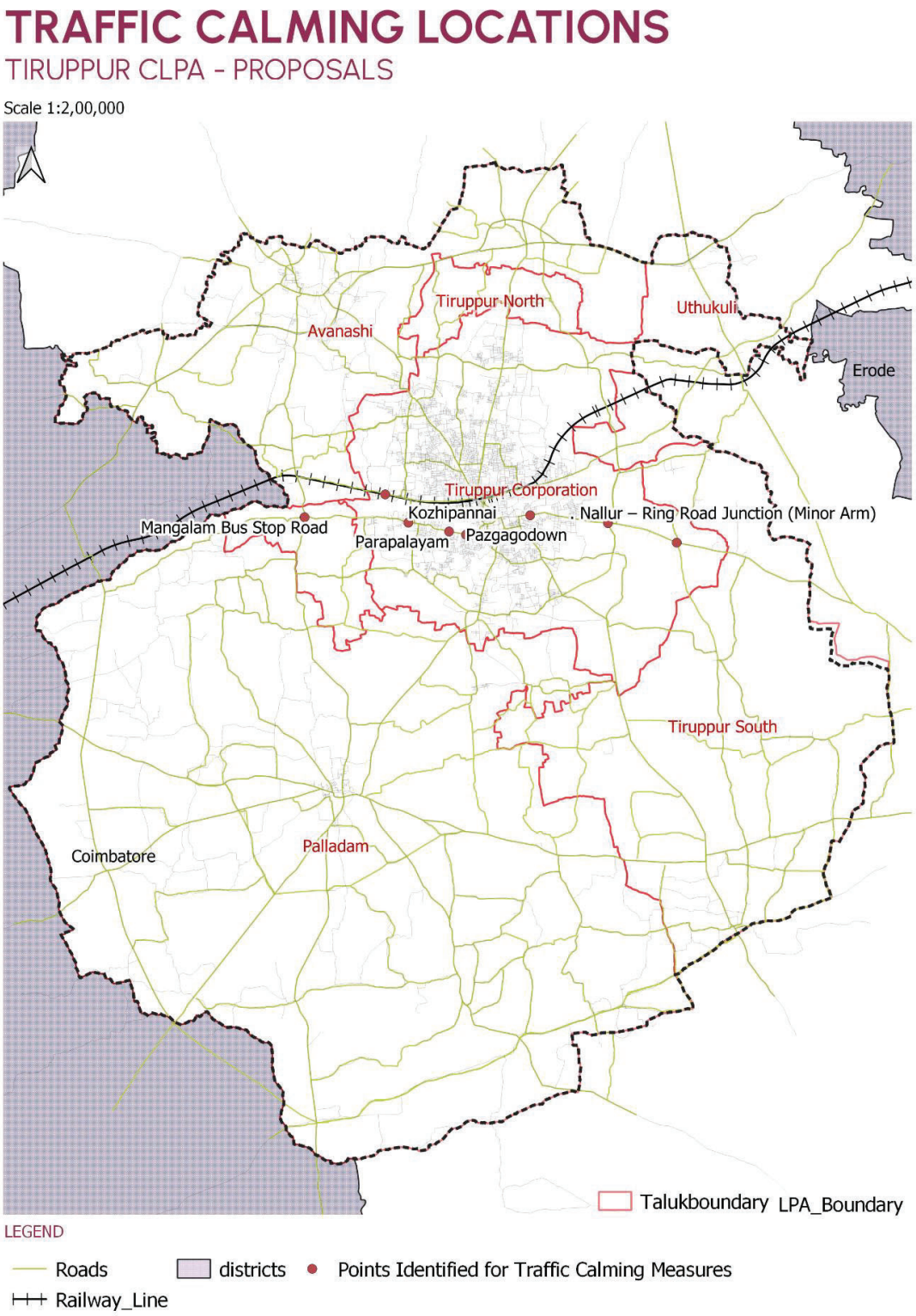
- Parking Management

Parking is one of the major transportation issues in the core area. Presently there are unorganised on street parking observed on many road

sections in the core area. Consultants identified existing on-street free parking locations in the core area which shall be converted to pay and park.

- Traffic Calming Measures

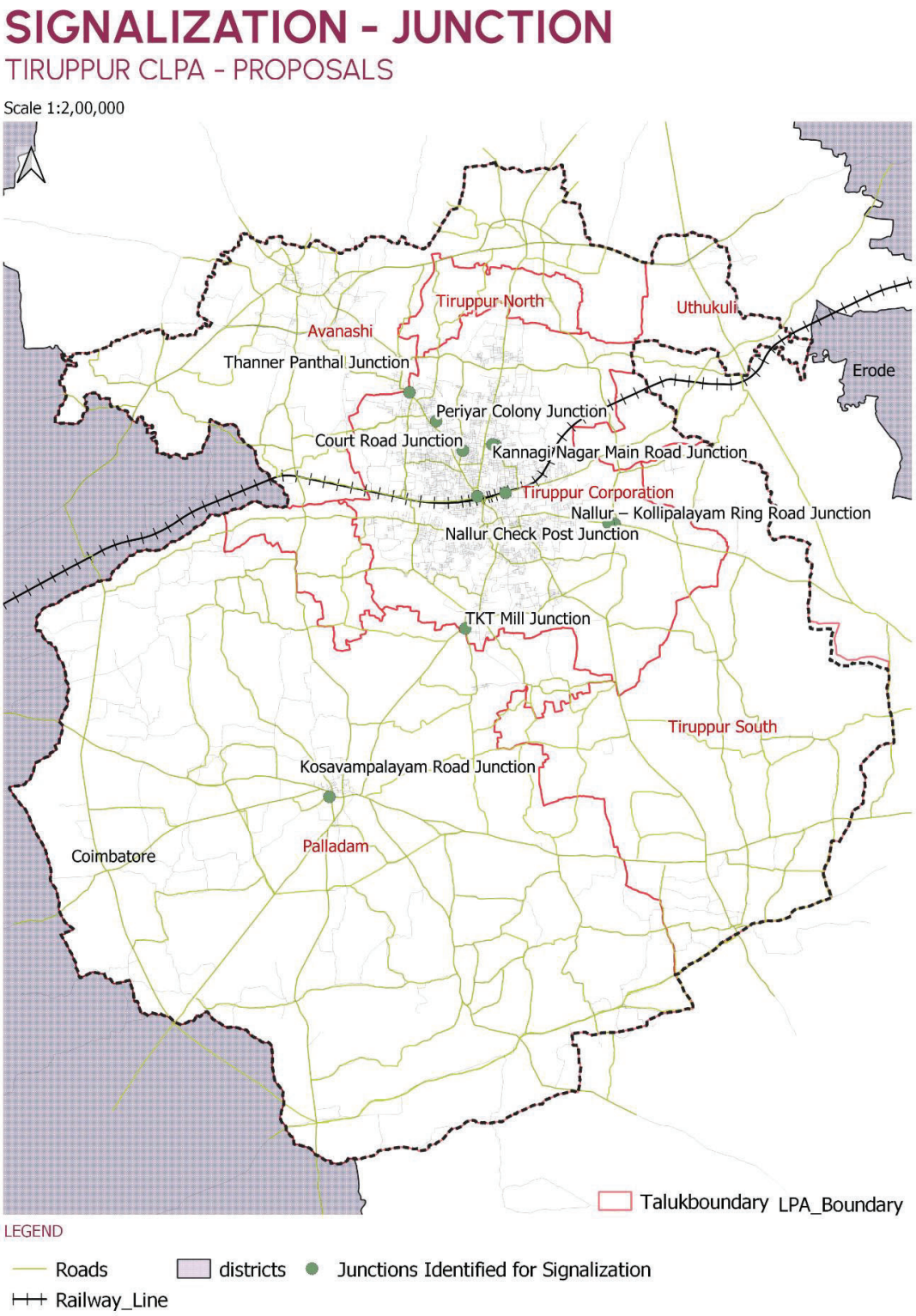
Traffic calming measures are suggested for lowering vehicular speeds where pedestrian movement is heavy such as residential areas, institutional areas, public spaces, community centres and recreational areas. This will improve mobility and road safety. Traffic calming measures are life saving techniques used to reduce the impact of a crash and also to avoid road crashes. Speeds below 35 kmph have been found to be drastically reduce the risk of a fatal crash. A number of road design measures could be implemented to reduce traffic speeds and improve safety. These measures help in reducing speeds, improved cycling and walking conditions.



Map 72 Proposed Traffic Calming Locations, Tiruppur LPA

- Signalisation of Junction

On all the major corridors and junctions, traffic signals should be coordinated to minimize the delay and increase the through put of the corridor. It is observed that many junctions' signals are operated by traffic police manually. Consultants have identified the junctions which require signalisation based on the site conditions.



Map 73 Proposed Traffic Calming Locations, Tiruppur LPA

- Encroachment Management

Hawker encroachments reduce the effective carriageway and footpath width and thus reduce the capacity of the road. The pedestrians are forced to walk on the carriageway due to encroachments on the footpath, thereby creating unsafe situations for the self as well as the traffic. At the same time hawkers are part of the society and cannot be removed completely, they need to be regulated with proper policy and enforcement. In view of above, three types of hawker zones are proposed to regulate the hawking activity.

- Green zone – areas where hawking is allowed all the time
- Amber zone – areas where hawking is allowed at restricted hours
- Red zone – areas where hawking is not allowed anytime

Red Zone

- New Bus Stand
- Old Bus Stand Area
- Tiruppur Railway Station Area

Amber Zone

- Avinashi Road
- P.N. Road
- Kangeyam Road
- Dharapuram Road
- Palladam Road

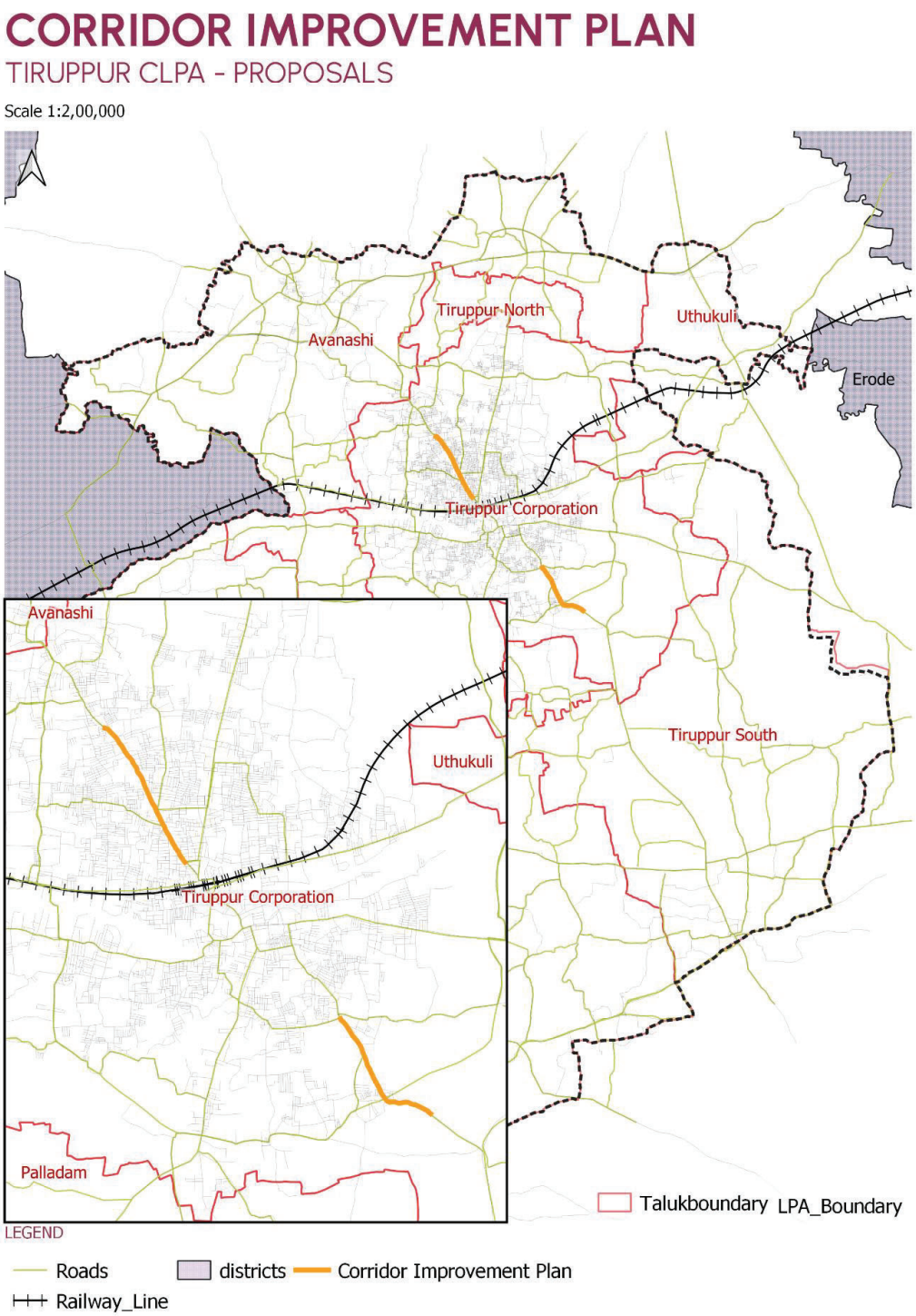
In addition to above, at all the junctions hawking activity has to be restricted for at least 50 m on all the arms of the junction.

- ITS
- Commercial Vehicle Entry Restrictions

Entry of Medium Goods Vehicles and Heavy Goods Vehicles has been presently restricted on Tiruppur City Roads to address traffic congestion and commuters' mobility. Heavy vehicles and goods carriers are not allowed to ply on Tiruppur City roads during 8am to 12pm in the morning and from 4pm to 9pm in the evening. Presence of heavy vehicles in core areas during peak

hours obstructs the traffic flow and also causes fatal accidents, thereby, disrupting the traffic movement. But enforcing the restriction of heavy vehicles must be strictly followed by TCMC traffic police in order to maintain smooth traffic flow during peak hours. Tiruppur City traffic police department has rerouted the heavy vehicles entry from all radial to use Ring Road. Heavy vehicles should be restricted on all arterial and sub-arterial roads in urban areas during morning and evening peak hours. Light Commercial Vehicles may be allowed on selected roads for goods distribution. By banning heavy vehicles on urban roads people can commute safe and hassle free. It also enriches pedestrian and cycle movement in the city.

20.8.5 Corridor Improvement Plan

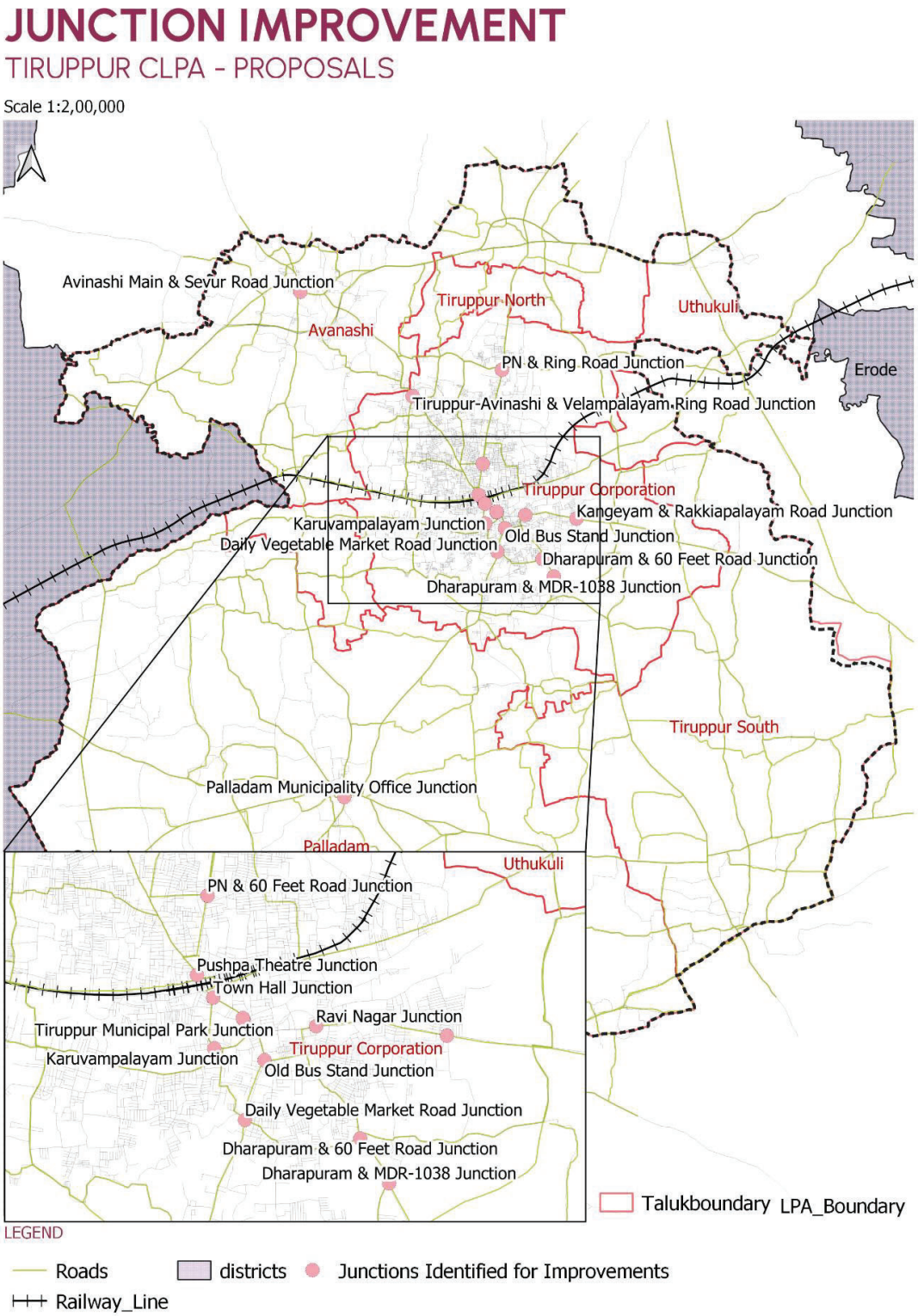


Map 74 Proposed Corridor Improvement Plan, Tiruppur LPA

20.8.6 Junction Improvements

The design of junction by improving the junction geometrics, channelization, and provision of pedestrian facilities, signage & markings are suggested. Some of the junctions are large such as Town Hall Junction which shall be redesigned to make it more compact. The list of junctions identified for improvements have been presented in the Table beolw. The criteria adopted for identifying the junctions are based on vehicular and pedestrian traffic intensity, lack of geometrics, accident prone locations etc.

- Avinashi Main & Sevur Road Junction 3-Arm
- Tiruppur-Avinashi & Velampalayam Ring Road Junction 3-Arm
- PN & Ring Road Junction 4-Arm
- PN & 60 Feet Road Junction 4-Arm
- Pushpa Theatre Junction 4-Arm
- Town Hall Junction 4-Arm
- Tiruppur Municipal Park Junction 4-Arm
- Tiruppur Municipal Corporation Junction 4-Arm
- Karuvampalayam Junction 3-Arm
- Old Bus Stand Junction 3-Arm
- Ravi Nagar Junction 3-Arm
- Kangeyam & Rakkiapalayam Road Junction 4-Arm
- Daily Vegetable Market Road Junction 3-Arm
- Dharapuram & 60 Feet Road Junction 3-Arm
- Dharapuram & MDR-1038 Junction 3-Arm
- Palladam Municipality Office Junction 4-Arm’



Map 75 Proposed Junction Improvement Plan, Tiruppur LPA

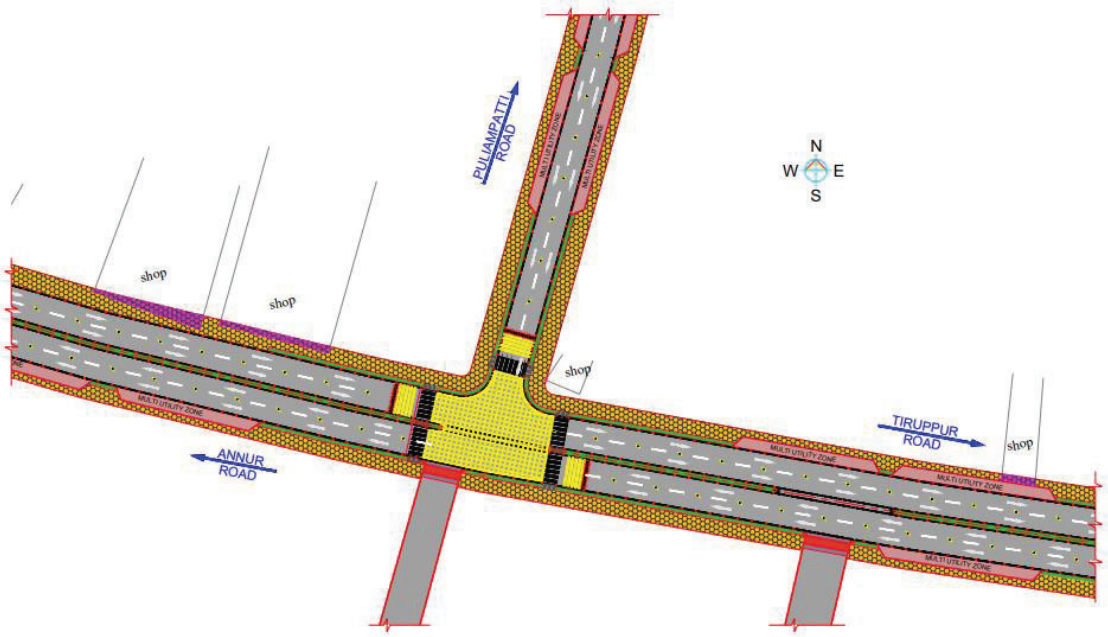


Figure 37 Junction Improvement, Tiruppur LPA

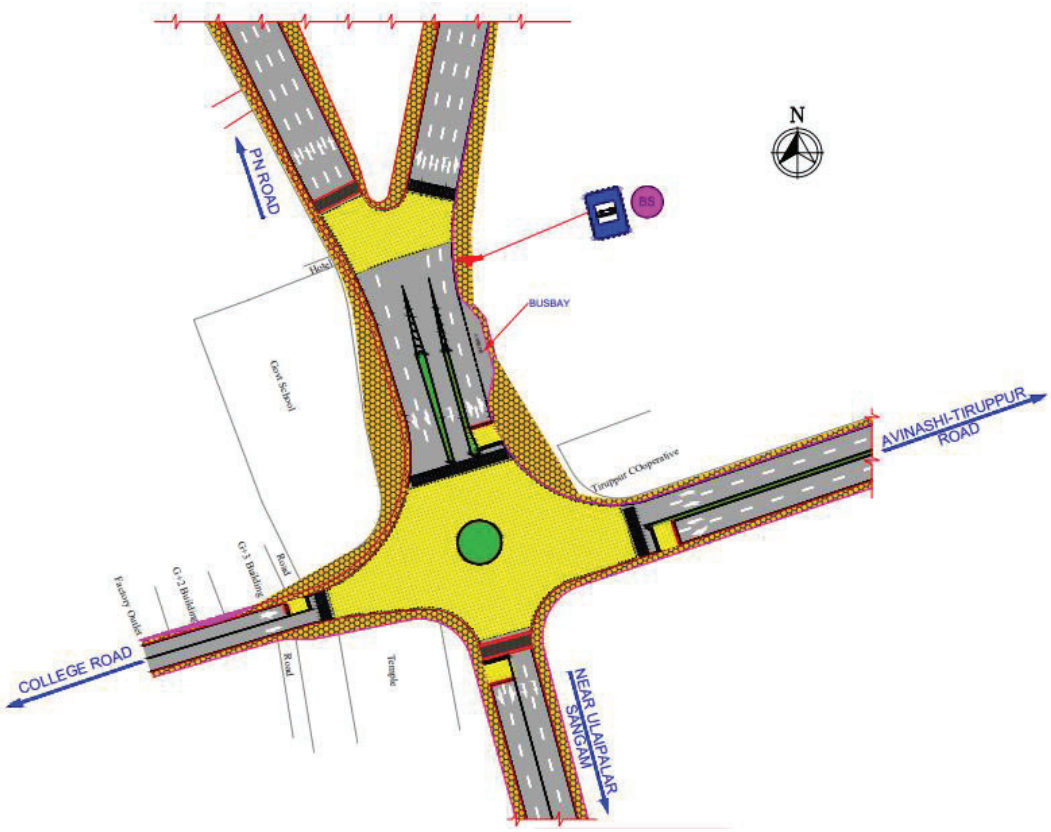


Figure 38 Proposed Junction Improvement, Tiruppur LPA

Figure 39 Junction Improvement, Tiruppur LPA

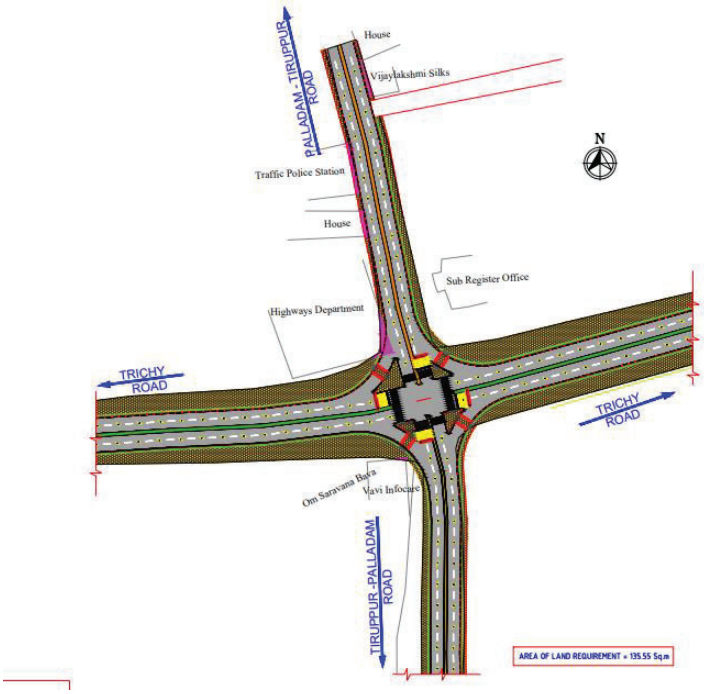


Figure 40 Junction Improvement, Tiruppur LPA

20.9 MEDIUM TERM PROPOSALS

20.9.1 Public Transport Improvement Plan

- Bus Terminals and Depots
- High Frequency Bus Routes
- Multimodal Integration

20.9.2 Road Network Development Plan

- Grade Seperators and Flyovers at Junctions
- Development of New Links
- ROB/RUB

Mobility corridors maximizes throughput of people, focusing on mass transport and non-motorized traffic, rather than private vehicles. Mobility corridors offer a strong network providing connectivity to major attraction centres in the city along with regional connectivity. The minimum ROW considered for mobility corridors is 20 m.

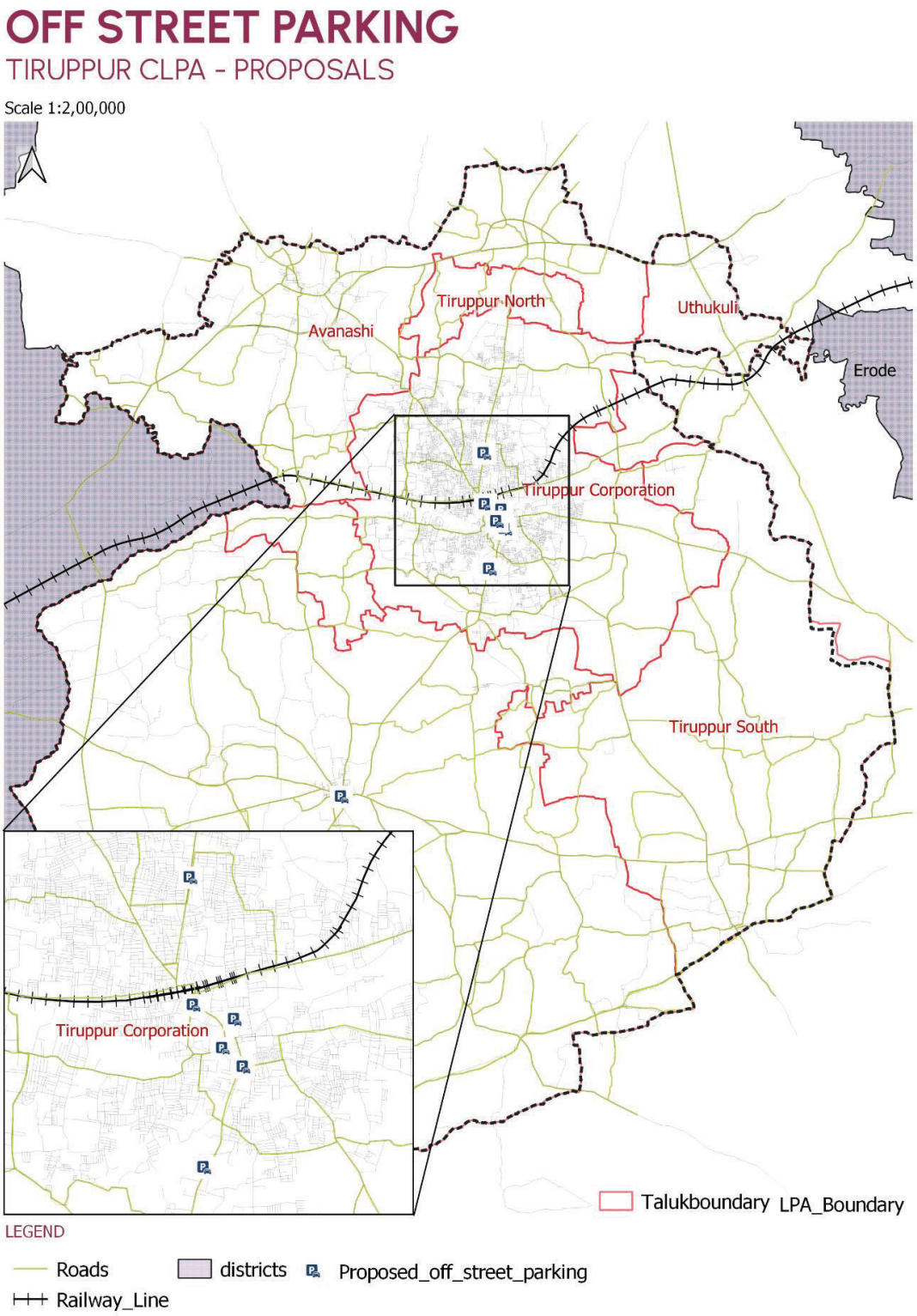
Mobility Corridors are as follows.

- Avinashi Road
- P.N Road
- Kangeyam Road
- Dharapuram Road
- Palladam Road

Ring Road (Thirumurugan Poondi-Chettipaliyam-Vaviplayam-Nallur-Veerapandi-Andipalayam)

20.9.3 Mobility Management Measures

- Off street Parking



Map 76 Proposed off-street parking, Tiruppur LPA

- Traffic Management
- IPT Management

20.9.4 Freight Management Plan

Freight traffic carrying goods within city affects the overall city mobility. Freight traffic comprises of both local traffic and regional traffic. Since the transportation of goods will grow with economic growth, the planning for the movement of goods needs to be given due importance. Primarily, freight movement prevails along all the radial roads within Tiruppur LPA. It is majorly due to the commerce and trade related activities prevailing near Tiruppur Railway Station, industries located within the Tiruppur City Municipal Corporation, and due to many on-going construction activities within the Tiruppur LPA. This results in congestion as well as a safety concern for vehicular and pedestrian traffic within the city area.

Hence heavy commercial vehicles shall be diverted to the proposed ring roads by restricting the goods movement along major radial roads during peak periods (9AM to 12PM and 4PM to 9PM) will help to relieve congestion and ensures safety of vehicle users along the congested radial roads

Some of the freight generating traffic nodes and sub-regions (other than the various identified industrial cluster) within the urban cores of LPA are (i) Tiruppur Railway Station, (ii) Daily Vegetable Market (located on SH-19), (iii) Veerapandi, (iv) Muthalipalayam, (v) Perumanallur, (vi) Kozhipannai, (vii) Chettipalayam etc.

- Truck terminals should be located on the periphery so that loading and unloading of inter-city trucks
- can take place there and help in reducing congestion and pollution within the city
- All truck terminals must have basic facilities like resting rooms, toilets, drinking water, restaurant
- and vehicle repairs. Provision for rooms for night halt should also be made as per demand.
- The association of the transport companies and truck owners should take responsibility for general
- cleanliness of the area, maintenance of parking areas and provision of security systems

- All truck terminals should have separate entry and exit points to avoid conflicts and crashes

To cater to the truck parking and loading/unloading requirements, truck terminals are proposed at several locations as shown in below. In order to avoid entry of heavy vehicles into the city and to reduce the congestion, the stakeholders requested to shift the existing goods shed operating at Tiruppur railway station to Vanjipalayam by providing sufficient operating capacity and additional freight terminal are identified for the TCMC

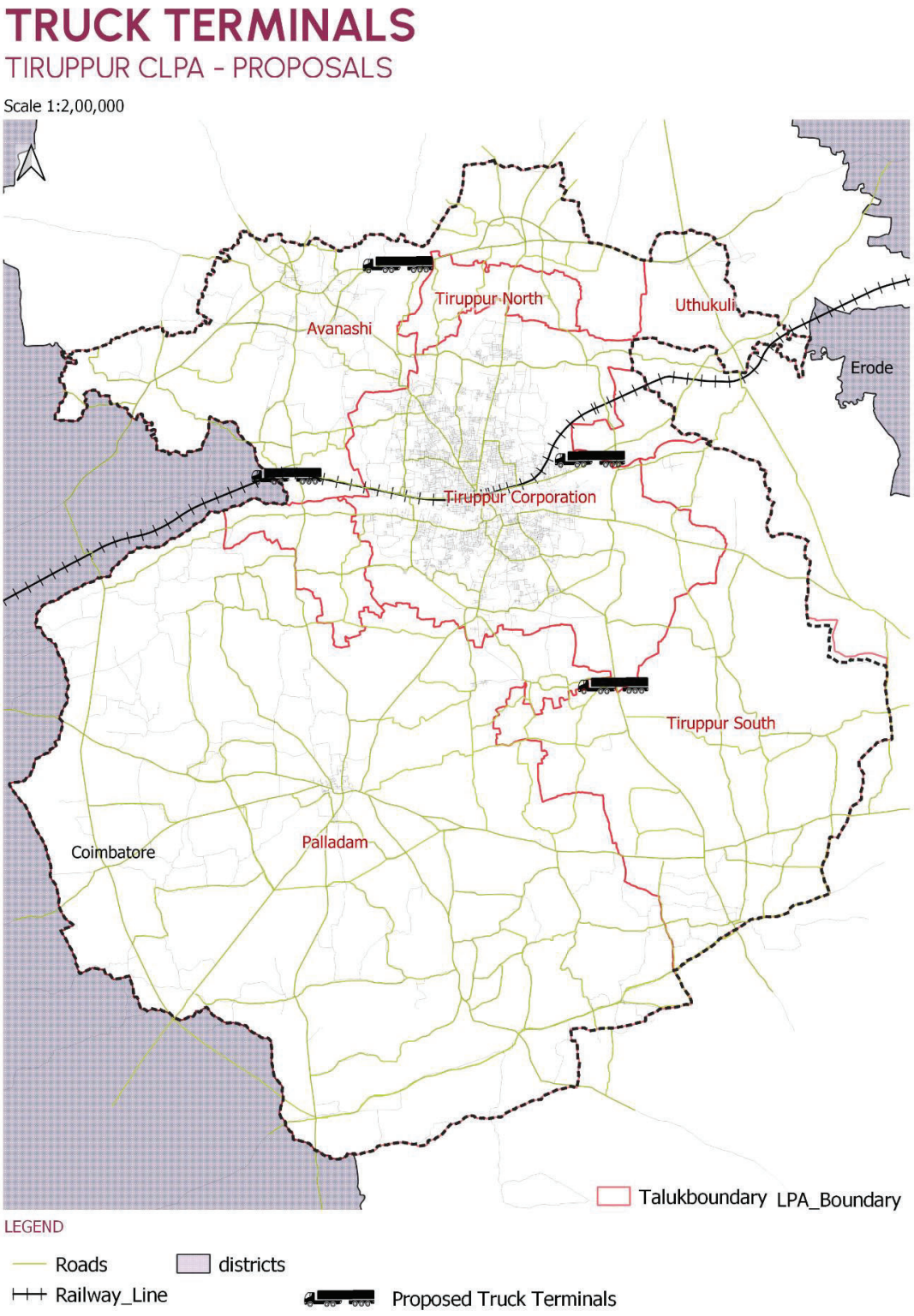
- 1 New Tiruppur, near Nethaji Appreal Park having a capacity for 75 trucks in area of 2.8 acres land owned by Government.
- Agraharaperiyapalyam along Uthukuli Road having a capacity for 75 trucks in area of 2.8 acres land owned by Government.
- Dharapuram Road, Near Pollikalipalayam having a capacity for 50 trucks in area of 1.9 acres land owned by Government.
- Vanjipalayam having a capacity for 150 trucks in area of 5.6 acres land owned by Private.

Goods traffic from Coimbatore, can utilise the terminals proposed near Tirumurugan Poondi while goods traffic from Erode, Salem can utilize the terminal facility at Uthukuli road, similarly goods traffic from Dharapuram can utilse the facility proposed near Pollikalipalayam and Vanjipalayam has location advantage of Vanjipalayam railway station and equidistant from Tiruppur, Palladam and Avinashi helps in efficient transferring of goods from western direction.

Sl. No	Location (SF No., Village, Local Body) and No.of Green field Truck Terminal in the planning Area	Status (if Existing, under construction-G.O details/Under Construction/Redevelopment/Proposed in the respective Local Body)
01	SF No.70 of Palangarai Village, Avinashi Taluk, New Tiruppur, near Nethaji Apparel	Proposed in new Master Plan – Palangarai Village Panchayat

	Park – 75 trucks	
02	SF No.35 of Sarakar Periyapalayam Village, Uthukuli Taluk, Agraharaperiyapalayam along Uthukuli Road – 75 trucks	Proposed in new Master Plan – Sarakar Periyapalayam Village Panchayat
03	SF No.598 of Thongutipalayam Village, Tiruppur South Taluk, Dharapuram Road, Near Pollikalipalayam – 50 trucks	Proposed in new Master Plan – Thongutipalayam Village Panchayat
04	SF No.668 of Pudhupalayam Village, Avinashi Taluk, Vanjipalayam – 150 trucks	Proposed in new Master Plan – Pudhupalayam Village Panchayat

SOURCE – CMP for Tiruppur City Municipal Corporation



Map 77 Proposed Truck Terminals, Tiruppur LPA

20.10 LONG TERM PROPOSALS

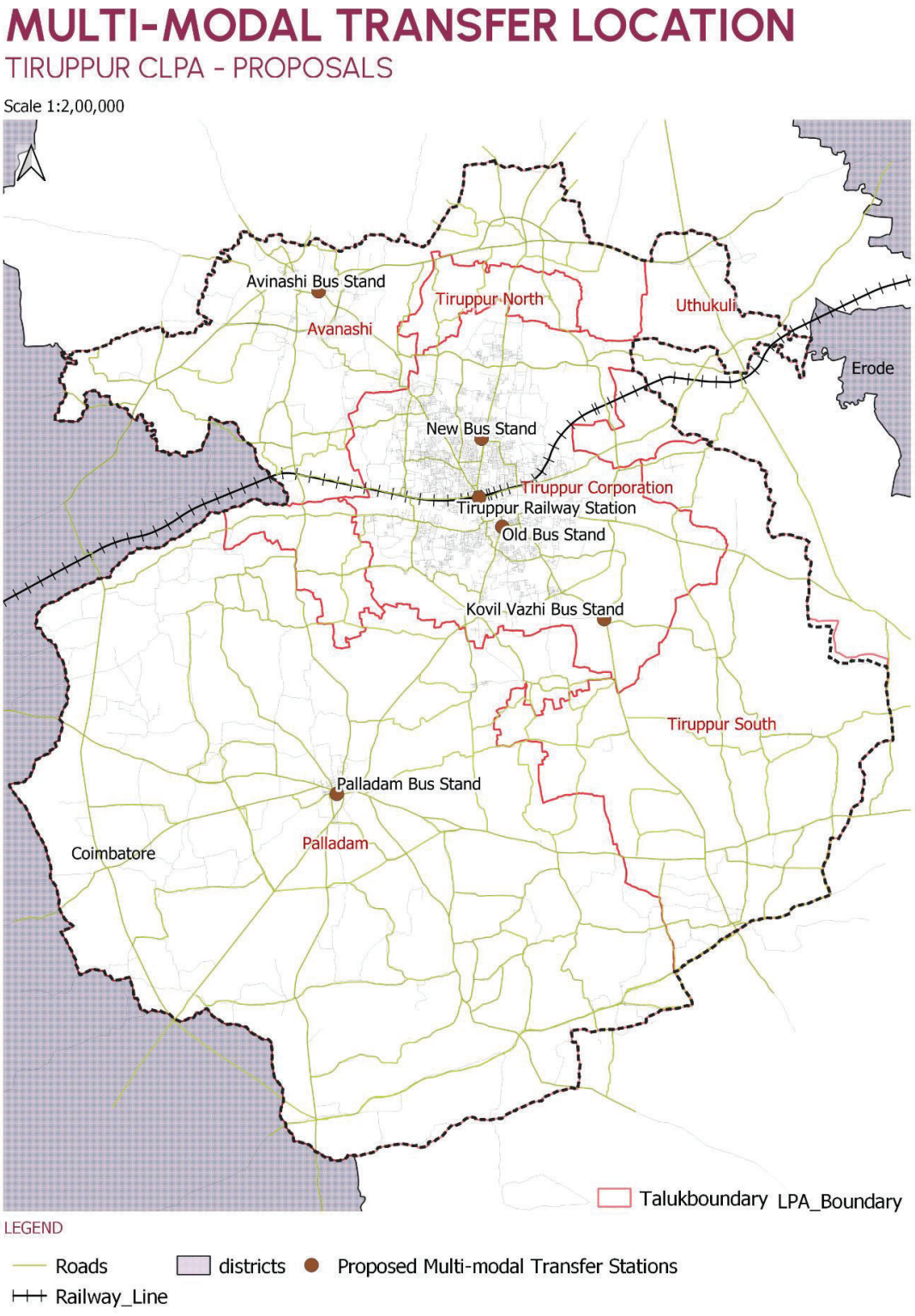
20.10.1 Integrated Landuse and Urban Mobility Plan

Spatial growth of city is guided by development of transport corridors and terminals. On the other hand, development of residential, industrial, institutional areas triggers investments in transport. Thus land-use and transport are inter-related. Therefore, any investments in transport should duly consider the land-use and any change in land-use should evaluate the transport requirements. The inter-relation of land-use and transport is shown in the Figure 9-64.

The land-use and transport integration will have following benefits:

- Reduces the trip lengths
- Reduces vehicle-km
- Encourages trips by NMT for short trips and public transport for long trips
- Optimizes the investments in transport
- Ensures effective utilization of transport infrastructure, facilities and transport services
- Reduces accidents and vehicular pollution
- Reduces the overall cost of travel within the city and thus improve economic competitiveness of the city

Integrated land-use transport plan is the solution for sustainable urban transport



Map 78 Proposed Multi-Modal Transfer Locations, Tiruppur LPA

20.10.2 Transit Oriented Development

Transit oriented development is an integrated urban space with high density development along the mass transit corridors. Developments are integrated with the transit stations with multi modal integrity so that people can easily travel to different part of city with minimum environmental impact.

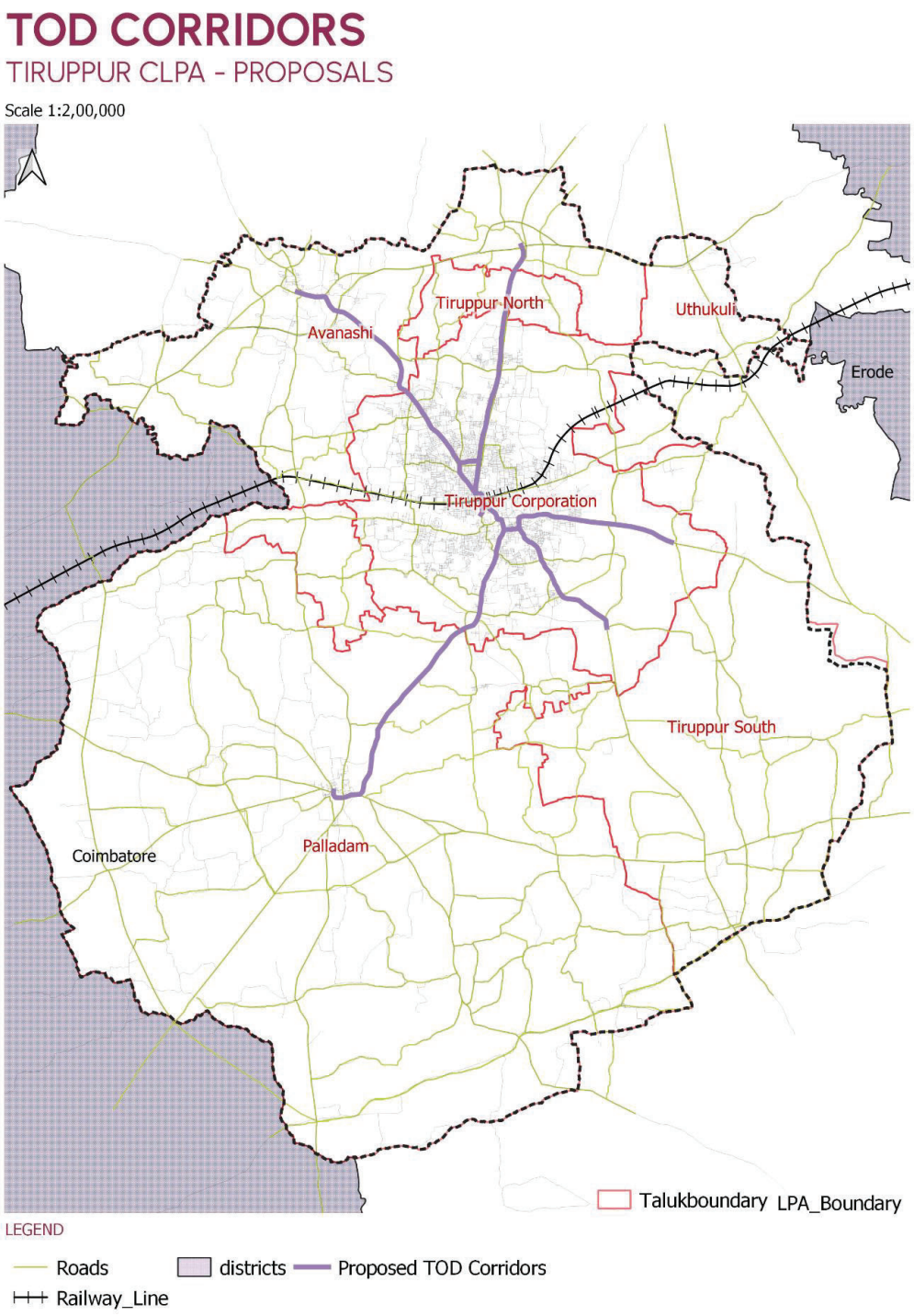
TOD Corridors are provided with following provisions, NMT facilities: Street design should ensure adequate clear space for footpath and cycle tracks covered with green shadings to make walking and cycling comfortable during daytime and provide with adequate light facilities to ensure safety during night time with safe pedestrian crossings wherever required.

Public transport: TOD corridor must be connected with frequent, reliable and efficient network of rapid transit system by providing better accessibility to majority of population.

High-Density Mixed-Use Development: TOD must ensure high dense development with at least 140 dwellings per hectare. High rise developments are developed with 5 minutes' walk from high-capacity rapid transit system. Mixed use compact development will reduce the need for travel and hence reduced trip length and congestion in the road network.

Proposed TOD Corridors

1. Tiruppur Railway Station to Palladam along Palladam Road
2. Tiruppur Railway Station to Avinashi along Avinashi Road
3. Tiruppur Railway Station to Perumanallaur PN Road
4. Tiruppur Railway Station to Mudhalipalayampirivu along Kangayam Road
5. Tiruppur Railway Station to Kovil Vazhi along Dharapuram Road



Map 79 Proposed TOD Corridors, Tiruppur LPA

20.10.3 Public Transport Improvement Plan

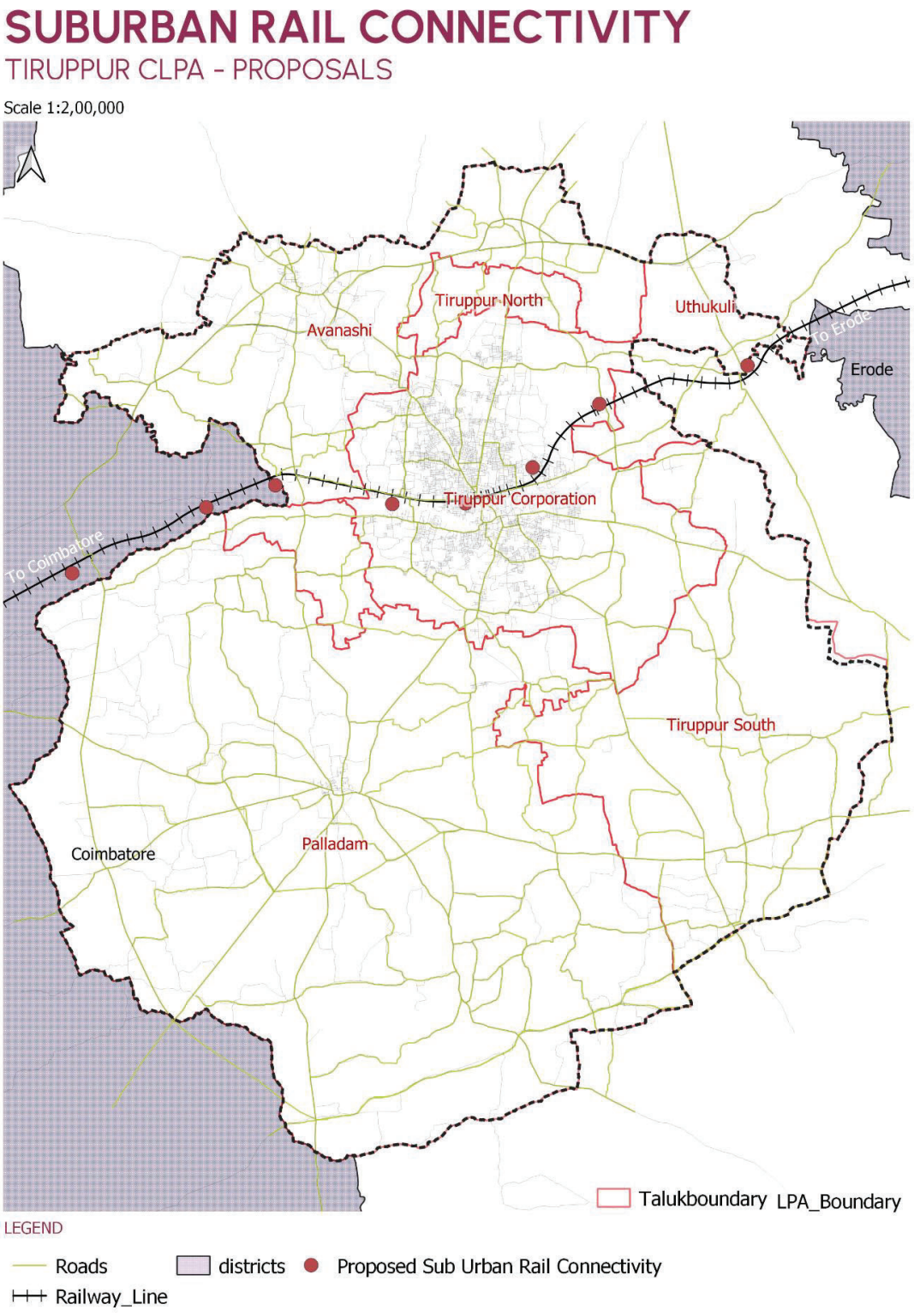
Sub urban commuter rail are the scheduled rail-based system connecting the low density sub urban regions of the city. The defining feature of Suburban Train Service as identified by the Railways is that they are meant for short distances, normally up to 150 km to facilitate rapid movement of passengers within the cities, suburbs and extended suburbs. As per Indian railways annual reports and accounts (2019-20), sub urban passengers account for more than 50% of the total rail passengers

Currently Tiruppur railway line is coming under Salem division of Southern Railways and Tiruppur station is a part of Salem-Podanur railway line. Main line is currently having dual tracks with Tiruppur station handling approximately 50 passenger trains in a day.

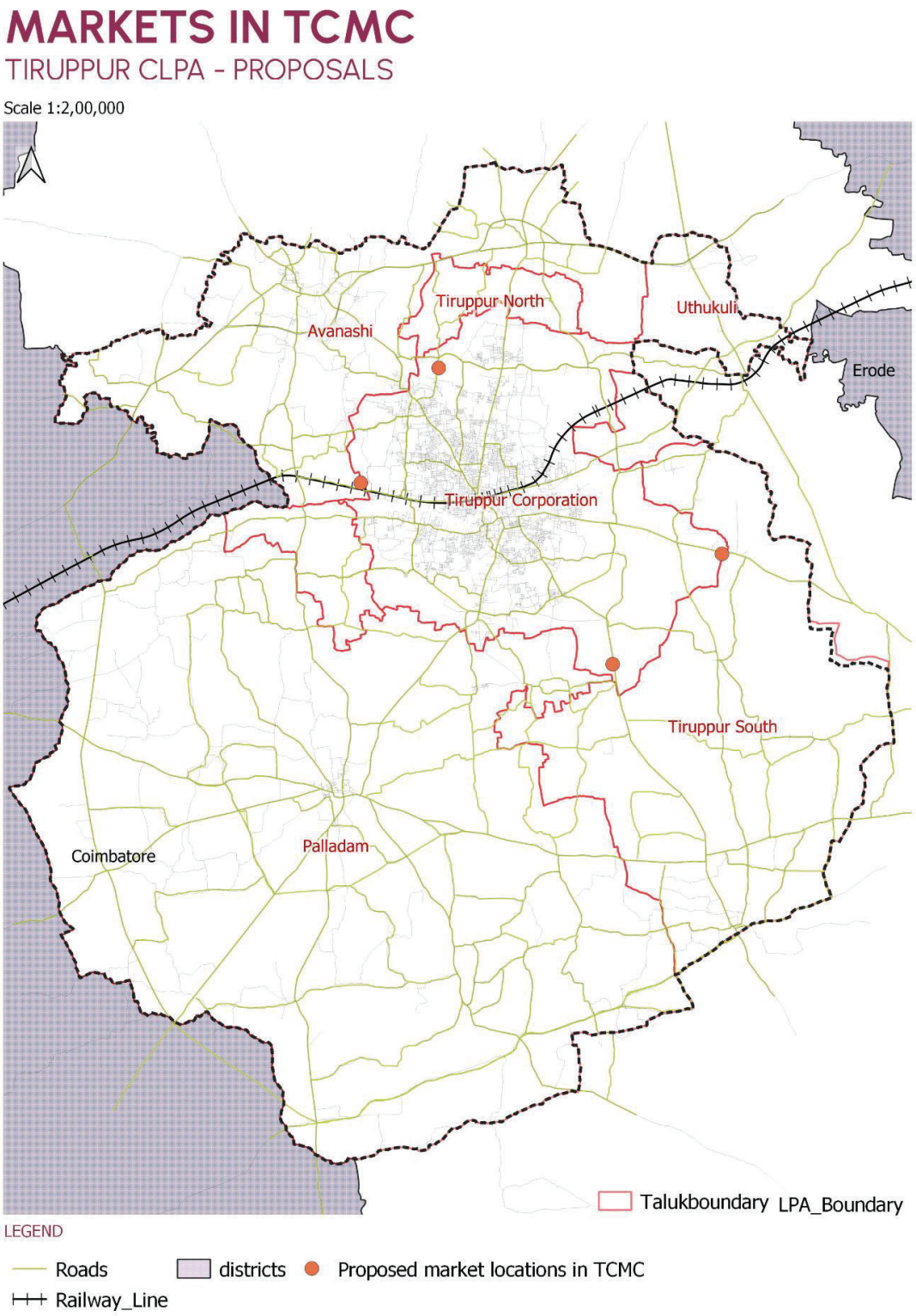
This study proposes a sub urban commuter rail system connecting Erode-Tiruppur-Coimbatore with Coimbatore airport connectivity for a length of approximately 100 Km.

Erode being an emerging industrial city has its influence in nearby districts such as Tiruppur and Coimbatore. Providing connectivity between Erode, Tiruppur and Coimbatore will enhance the regional connectivity and promotes economic development. In order to provide a comfortable ride for passengers two air conditioned coaches can be attached with the scheduled fleet.

In between Erode and Coimbatore currently there are about 16 stations including Tiruppur station is in operation. The 16 stations are Erode, Thottipalayam, Perundurai, Ingur, Vijayamangalam, Uthukuli, Koolipalayam, Tiruppur, Vanjipalayam, Somanur, Sulur road, Irugur, Singanallur, Peelamedu, Coimbatore north and Coimbatore junction, of which Uthukuli, Koolipalayam, Tiruppur and Vanjipalayam are within Tiruppur Local Planning Area. Connecting Coimbatore airport with Tiruppur and Erode through sub urban rail will reduce considerable amount of road traffic using personalised modes to reach airport and hence a reduced congestion.



Map 80 Proposed Suburban Rail Connectivity, Tiruppur LPA



Map 81 Proposed Markets, Tiruppur Corporation

20.11 SHORT, MID AND LONG TERM PROPOSALS IN MOBILITY

SHORT TERM PROPOSALS	MEDIUM TERM PROPOSALS	LONG TERM PROPOSALS
Public Transport Improvement Plan • Public Transport Route Improvements • Bus Shelters • Station area Traffic Improvements	**Public Transport Improvement Plan** • Bus Terminals and Depots • High Frequency Bus Routes • Multimodal Integration	**Integrated Landuse and Urban Mobility Plan**
Road Improvement Plan • Road Surface Condition • Signages and Markings • Street Lightings	**Mobility Management Measures** • Off street Parking • Traffic Management • IPT Management	**Transit Oriented Development**

SHORT TERM PROPOSALS	MEDIUM TERM PROPOSALS	LONG TERM PROPOSALS
NMT Improvement Plan **Footpath** • Grade Separated Pedestrian Facilities • Bicycle Tracks • Pedestrian Priority Streets • Pedestrian Only Streets	**Road Network Development Plan** • Grade Separators and Flyovers at Junctions • Development of New Links • ROB/RUB	**Road Network Development Plan** • Ring Road for Tiruppur City • Bypass road for Palladam
Mobility Management Plan • Parking Management • Traffic Calming Measures • Signalisation of Junction • Encroachment Management • Junction Improvement	**Freight Management Plan** • Truck Terminals • Freight Movement Restrictions	**Public Transport Improvement Plan** • Suburban Commuter Rail • Mass Transit System

21

PROJECTED REQUIREMENTS AND PROPOSALS IN PHYSICAL INFRASTRUCTURE

21 PROJECTED REQUIREMENTS AND PROPOSALS IN PHYSICAL INFRASTRUCTURE

21.1 WATER SUPPLY

The water supply projection for Tiruppur LPA meticulously evaluates current and future water demands, emphasizing the critical importance of sustainable resource management. As of 2021, the LPA relies on the Bavani River and Cauvery River through NTADCL for its water supply, with additional sources such as CWSS in various regions. A comprehensive gap analysis reveals the challenges and opportunities that lie ahead.

For Tiruppur Corporation, In 2021, the population stands at 11,65,927, with an available water supply quantity of 196 MLD. However, the per capita supply falls short of the recommended norms, leading to a demand gap of 11.58 MLD. Industrial demand, notably in Tiruppur Corporation, adds complexity to the water supply dynamics. The number of Overhead Tanks (OHTs) is distributed across regions, totaling 76 with a cumulative capacity of 76.05 ML.

Looking forward to 2041, the projected population of 20,99,890 raises significant concerns about meeting the escalating water demand. The anticipated water requirement in 2041 is estimated at 363.49 MLD, revealing a substantial gap of 167 MLD. To address this gap, the report suggests additional storage capacity of 287.44 ML, distributed strategically across different regions. This projection underscores the urgency of adopting proactive measures to augment water resources and enhance storage infrastructure.

Likewise, water demand for rest of LPA is calculated and tabulated below.

Table 96 Water Demand 2041, Tiruppur LPA

	DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES
1	Water Supply Source	Bavani River, Cauvery River – NTADCL	Bavani River - CWSS Cauvery River – NTADCL	Pillur-Athikadavu - CWSS	Pillur-Athikadavu - CWSS Bavani River - CWSS Cauvery River – NTADCL	Pillur-Athikadavu - CWSS, Bavani River, Cauvery River
2	Population 2021	11,65,927	41,809	55,994	68,992	4,65,810
3	Available Water Supply Quantity (MLD)	196	2.75	4	7.1	21.03
4	Per Capita Supply (LPCD)	135	77	71	103	45
5	Per Capita Norms (LPCD)	135	135	135	135	70
6	Industrial Demand	49.16	-	-	-	-
7	Quantity of Water as per standard (MLD)	157.40	5.64	7.56	9.31	32.61

	DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES
8	**Demand Gap in MLD in 2021**	**10.56**	**2.89**	**3.56**	**2.21**	**11.58**
9	No. of OHTs	70	5	12	17	954
10	Total Capacity of OHTs (ML)	76.05	0.86	1.5	2.4	23.66
11	Population 2041	20,99,890	71,709	96,228	87,599	7,23,886
12	Quantity of Water required 2041 in MLD	363.49	9.68	12.99	11.83	50.67
13	**Quantity Gap in MLD in 2041**	**167.49**	**6.93**	**8.99**	**4.73**	**29.64**
14	Storage Capacity Required in 2041 in ML	363.49	9.68	12.99	11.83	50.67
15	**Additional Storage Capacity required in 2041 in ML**	**287.44**	**8.82**	**11.49**	**9.43**	**27.01**

21.2 SEWERAGE

In 2021, the water and sewage infrastructure assessment for Tiruppur LPA reveals a dynamic interplay between population growth and the corresponding demands on water resources. With a population of 11,65,927 in Tiruppur Corporation and varying figures in Thirumuruganpoondi, Palladam, Town Panchayats, and villages, the available water quantity at source stands at 196 MLD for corporation. Despite this, the demand, in accordance with standards, is 157.4 MLD, highlighting a potential shortfall. Additionally, sewage generation, varying across regions, prompts the need for effective disposal methods. While Tiruppur Corporation relies on Underground Sewerage Systems (UGSS), Sewage Treatment Plants (STPs), and Septic Tanks, other areas primarily utilize Septic Tanks. The calculated sewage generation of 125.92 MLD and the existing STP capacity of 80 MLD underscore the necessity for additional STPs in Tiruppur Corporation.

Looking ahead to 2041, with an anticipated population of 20,99,890, the sewage generation is projected to increase to 226.79 MLD, necessitating a significant boost in sewage treatment capacity. The proposed additional STP requirement of 146.79 MLD underscores the imperative for strategic planning and infrastructure development to accommodate the evolving needs. The envisioned sewerage system for 2041 aims at achieving 100% coverage in UGSS and independent STPs, with clustered STPs providing a comprehensive solution to manage the escalating sewage load. This forward-looking approach aligns with the anticipated population growth, ensuring that Tiruppur LPA's infrastructure evolves sustainably to meet the water and sanitation demands of its burgeoning population.

Sewage generation and its projection is as follows.

Table 97 Projected Sewerage 2041, Tiruppur LPA

S.NO	DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES
1	Population 2021	11,65,927	41,809	55,994	68,992	4,65,810
2	Available Water Quantity at Source (MLD)	196	2.75	4	7.1	21.03
3	Quantity of Water as per standard (MLD)	157.4	5.64	7.56	9.31	32.61
4	Sewage Generation in MLD	125.92	4.51	6.05	7.45	26.09
5	Method of Disposal	UGSS, STP and Septic Tanks	Septic Tanks	Septic Tanks	Septic Tanks	Septic Tanks
6	Capacity of STP in MLD	80	Nil	Nil	Nil	Nil
7	Additional STP Requirement **in 2021 in MLD**	**45.92**	**4.51**	**6.05**	**7.45**	**26.09**

8	Population in 2041	20,99,890	71,709	96,228	87,599	7,23,886
9	Sewage Generation in 2041 in MLD	226.79	7.74	10.39	9.46	40.54
10	Additional STP Required **in 2041 in MLD**	**146.79**	**7.74**	**10.39**	**9.46**	**40.54**
11	Sewerage System in 2041	100% Coverage in UGSS & independent STP for full capacity			UGSS / Clustered STP	

Domestic sewage generation is 80% of the total water supplied and is calculated to be 339.11 MLD for the 2041 population. Provisions have been made for 127.50 MLD sewage generation in the Tiruppur Corporation to process and propose STP which increases the living standards of the people.

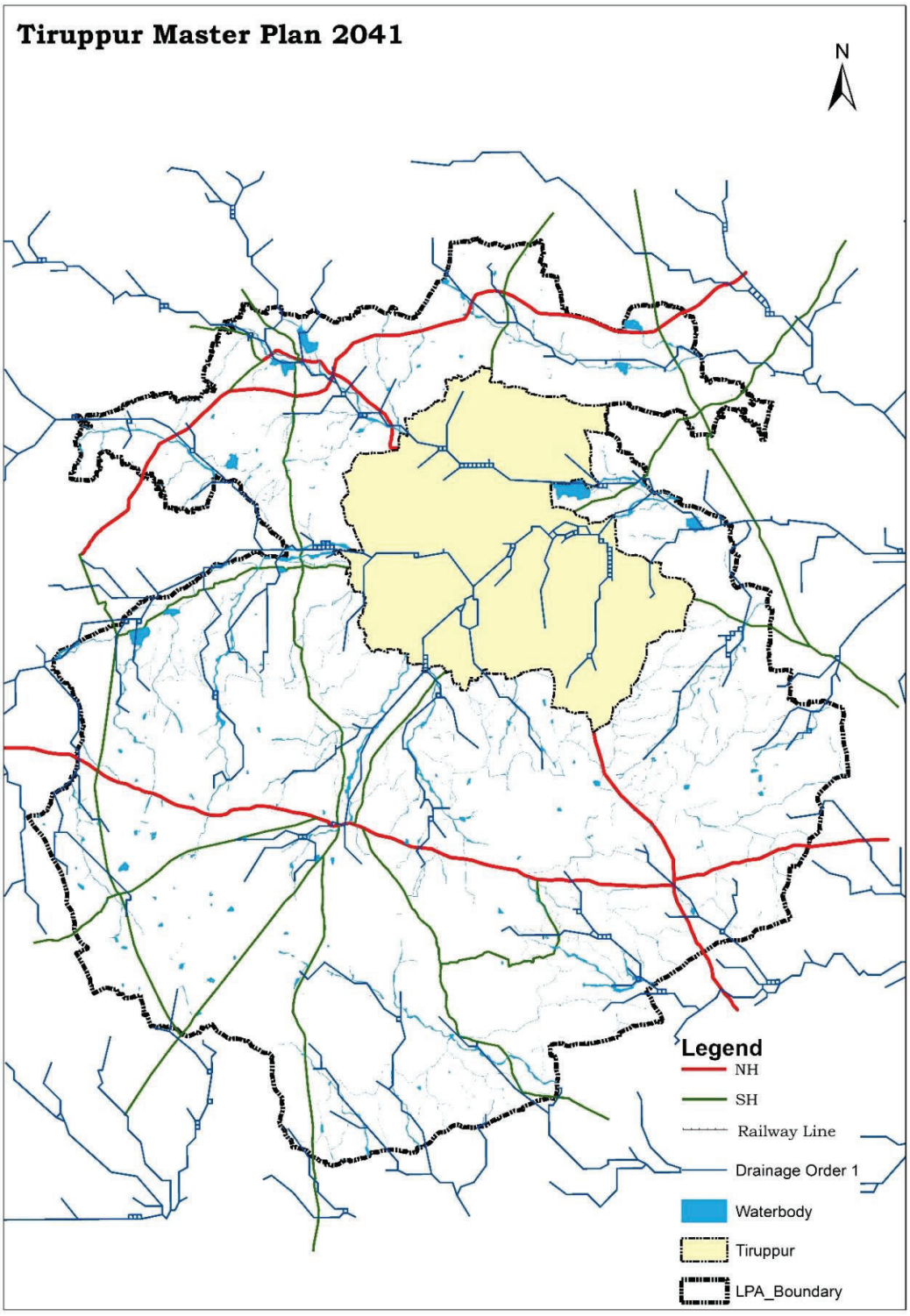
- In Tiruppur Corporation, One STP is functioning in Sarkar Periyapalayam having a capacity of 15 MLD.
- Under Smart city and Amrut Phase II, UGSS in Tiruppur Corporation is improved with construction of 2 new STPs (36 MLD capacity near Sarkar Periyapalayam and 20 MLD capacity near Chinnandipalayam). And the existing STP is expanded including additional 15 MLD capacity totalling 86 MLD. Additional 2 nos of STP is under consideration and site is not finalized for STPs.
- Total HSC connections – 88315 nos.
- In Other ULBs, UGSS is not implemented and individual septic tanks is the way followed for sewage management.

Steps have to be taken to process the sewage generated in the other urban centres of the LPA.

21.3 STORM WATER SYSTEM

The importance of full coverage and efficient management of stormwater drains cannot be overstated. These systems play a vital role in mitigating flooding, safeguarding public safety, protecting infrastructure, preserving water quality, and enhancing the overall resilience of urban areas, particularly in the face of climate change.

Moreover, comprehensive stormwater management contributes to environmental conservation, as it prevents pollutants from entering natural water bodies and sustains local ecosystems. It also promotes public health by eliminating breeding grounds for disease vectors and enhances the livability and aesthetics of cities. Recognizing the multifaceted benefits, investing in stormwater drainage systems, and ensuring their full coverage is essential for sustainable urban development and the well-being of communities.



Map 82 Proposed Drainage Order, Tiruppur LPA

21.4 SOLID WASTE MANAGEMENT

Effective solid waste management (SWM) is of paramount importance in Tiruppur Local Planning Authority (LPA), given the inadequacy in handling the growing amount of waste generated. With a projected population of 3,079,312 by 2041, the total solid waste generation in the LPA is estimated at a staggering 1,258.61 metric tons, encompassing Tiruppur Corporation, other urban centers, and the villages.

Projected waste generation is calculated for 2041 Population and is as follows.

Table 98 Projected Waste Generation 2041, Tiruppur Corporation

Population 2041	20,99,890
Per Capita Waste Generation as per NEERAI Stds in kg	0.6
Waste Generation in 2041 in MT	1260
Dry Waste Gap in 2041	400 MT
Wet Waste Gap in 2041	690 MT

In the projection for the year 2041, the anticipated population of Tiruppur corporation is expected to reach 20,99,890. To address the growing concern of waste management, the per capita waste generation is estimated in accordance with NEERAI standards at 0.6 kilograms. Consequently, the overall waste generation in 2041 is projected to be 1260 metric tons (MT). This includes both dry and wet waste components. Solid waste generation and its gap analysis for rest of LPA is as follows.

Table 99 Projected Waste Generation 2041, Tiruppur LPA

DESCRIPTION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES
Solid Waste Generated in MT in 2021	7.8	15.46	18.69	186.32
MCC Nos	nil	2 (10 MT)	nil	nil
Landfills	1.19 acres (Closed)	Nil	3 Nos	nil
Population in 2041	71,709	96,228	87,599	7,23,886
Waste Generation in 2041 in MT	28.68	38.49	35.04	217.17
Per Capita Waste Generation as per NEERAI Stds in kg	0.4	0.4	0.4	0.3
Gap in 2041	**28.68**	**28.49**	**35.04**	**217.17**

This substantial volume underscores the pressing need for comprehensive waste management solutions. SWM is not merely a matter of cleanliness but also a critical aspect of public health and environmental sustainability. Inadequate SWM can lead to pollution, health hazards, and the degradation of natural ecosystems.

By prioritizing efficient waste collection, recycling, and disposal systems, Tiruppur LPA can mitigate these challenges, reduce its environmental footprint, and ensure a healthier, more sustainable future for its residents. Sustainable SWM practices not only promote cleanliness but also contribute significantly to the well-being and prosperity of the community.

21.5 ELECTRICITY

As of 2021, Tiruppur accommodates a population of 17,98,531, with the existing capacity of the substation standing at 325 MegaVolt-amperes (MVa). However, with a projected population surge to 30,79,312 by 2041, the demand for electricity is expected to increase significantly. The projected demand for 2041 is estimated at 556 MVa, revealing a substantial gap of 231 MVa between the existing capacity and the anticipated demand.

To address this burgeoning demand and bridge the gap effectively, strategic measures are proposed. Ten additional substations, each with a capacity of 110 KVA, are deemed necessary. This proposed infrastructure expansion aligns with the proactive approach required to meet the escalating energy needs of Tiruppur's growing population. Implementing these measures will not only ensure a reliable power supply but also contribute to the region's sustainable development by providing adequate infrastructure to support the anticipated growth in electricity demand.

Table 100 Electicity Demand by 2041, Tiruppur LPA

Population in 2021	17,98,531
Existing Capacity of Sub Station in MVa	325
Population in 2041	30,79,312
Projected Demand in 2041 in MVa	556
Gap in 2041 in MVa	231
No. of Sub Stations required	10 nos of (110KVA Sub station)

21.6 LAND REQUIREMENTS FOR PHYSICAL INFRASTRUCTURE

Table 101 Physical Infrastructure Demand by 2041, Tiruppur LPA

	DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES	TOTAL LAND REQUIRED IN SQ.KM
Water supply	Additional source requirement in 2041 in MLD	87.49	6.93	8.99	4.73	29.64	
	Additional OHT capacity required in MLD	287.44	8.82	11.49	9.43	27.01	
	Land area required in hectare	6.23	0.85	0.95	0.85	1.23	0.08
Sewerage and sanitation	UGSS connection	Partially covered in few wards. Need 100% coverage	Need 100% coverage	Need 100% coverage	Need 100% coverage	Need 100% coverage	
	Additional stp capacity required in 2041 in MLD	146.79	7.74	10.39	9.46	40.54	
	Land area required in hectare	256.88	13.55	18.18	16.56	70.95	3.76

	DESCRIPTION	TIRUPPUR CORPORATION	THIRUMURUGANPOONDI	PALLADAM	TOWN PANCHAYATS	VILLAGES	TOTAL LAND REQUIRED IN SQ.KM
Storm water drain	140 - 150% drain coverage to the road length is required	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate	
Solid waste management	Additional mcc required in 2041 in mt	400	12.91	12.82	15.77	97.73	
	Land area required in hectare	6	0.20	0.20	0.25	1.50	0.08
Electricity	Additional substation capacity required in 2041 in mw	10 no's of 110kva sub stations					
	Land area required in hectare	62					0.62
							4.55

21.7 SHORT, MID AND LONG TERM PROPOSALS - PHYSICAL INFRASTRUCTURE PROPOSALS

Table 102 Proposals-Physical Infrastructure

	SHORT TERM PROPOSALS	MEDIUM TERM PROPOSALS	LONG TERM PROPOSALS
WATER SUPPLY	**100% Coverage** needs to be attained for Tiruppur Corporation. **Over Head Tanks** shall be constructed to meet the current demand. **HSC connections** need to be achieved 80 to 85%.	**Source Augmentation** needs to be identified for ultimate year and the **transmission network** shall be re-laid for the ultimate demand. (137.78 MLD)	**Distribution System** shall be rezoned and redesigned and the **HSC connections** need to be achieved 100%. **SCADA implementation** from source to DMA entry points will reduce the NRW.
SEWERAGE AND SANITATION	**Complete UGSS coverage** in Corporation. (146.79 MLD STP in Corporation) **Construction of Community**	**Complete UGSS coverage** in Municipalities with adequate STP capacity. **Reuse of Treated domestic sewage water** for	Introduction of **Dewats in Town Panchayats and Villages**. STPs shall be constructing by combining a cluster of Villages.

	SHORT TERM PROPOSALS	MEDIUM TERM PROPOSALS	LONG TERM PROPOSALS
	Toilets to meet the demand. Ensuring **100% ZLD** for all ETP/CETP.	Industrial purpose.	**Reuse of Treated domestic sewage water** from Town Panchayats for **Irrigation** purpose.
STORM WATER DRAIN	**Recharge Pits** shall be constructed along the boundary of the Water Bodies ensuring Groundwater Recharge. **Riverfront Development** with adequate buffer zones along the Noyyal River in Corporation area.	**Waterfront Development** shall be carried out and increasing the capacity o the water bodies by desilting and deweeding. Full **coverage of Storm water Drains** in all ULBs and Villages.	Groundwater Conservation by regulated Groundwater Extraction

	SHORT TERM PROPOSALS	MEDIUM TERM PROPOSALS	LONG TERM PROPOSALS
SOLID WASTE MANAGEMENT	Implement **Source Segregation**: Community Awareness Campaign: Increase Collection Points **Construction of 50% MCC** in Corporations and Municipalities. (180MT for Corporation and 13 MT for Municipalities) **Ensure 100% Recycling of the waste**.	**100% coverage of MCC** in Corporation and Municipalities. Maximum coverage of MCC in Town Panchayats and Villages. (360MT for Corporation and 26 MT for Municipalities) **Ensuring efficient Biomining of the Landfill sites.**	100% coverage of MCC in Town Panchayats and Villages. Ensuring **Zero Landfill Policy**
ELECTRICITY	**Adequate Sub Stations** need to be installed for future demand. Solar Panels shall be installed in **Government Buildings.**	**Transmission Lines** shall be installed for future demand. 100% supply of power from **Renewable sources** for **Urban**	**100% supply** of Electricity with adequate Substations and transmission lines. Atleast **50% of the Industrial**

	SHORT TERM PROPOSALS	MEDIUM TERM PROPOSALS	LONG TERM PROPOSALS
		Utilities (Street Lights, Traffic signals, Highmast lamps, Pumps etc.) in LPA	**Requirement** to be met from **Renewable sources**

22

PROJECTED REQUIREMENTS AND PROPOSALS IN SOCIAL INFRASTRUCTURE

22 PROJECTED REQUIREMENTS AND PROPOSALS IN SOCIAL INFRASTRUCTURE

22.1 EDUCATION

As per URDPFI Guidelines, one primary school for every 5000 population is required and one high school is required for every 7500 population. There are adequate primary schools and 20 high schools required in the LPA as per norms for projected population.

Table 103 Requirement of Educational Facilities, Tiruppur Corporation

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION	NO. REQUIRED FOR 2041 POPULATION
1	Primary Schools	282	233	419
2	High Schools	103	155	280
3	Higher Secondary Schools	63	155	280
4	Colleges	7	1	2
5	Medical Colleges	1	1	2

Table 104 Requirement of Educational Facilities, Tiruppur Corporation

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION	NO. REQUIRED FOR 2041 POPULATION
1	Primary Schools	12	8	12
2	High Schools	8	6	9

3	Higher Secondary Schools	3	6	9
4	Engineering Colleges	0	0	0
5	Medical Colleges	0	0	0

Table 105 Requirement of Educational Facilities, Tiruppur Corporation

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION	NO. REQUIRED FOR 2041 POPULATION
1	Primary Schools	24	11	19
2	High Schools	13	8	13
3	Higher Secondary Schools	5	8	13
4	Engineering Colleges	0	0	0
5	Medical Colleges	0	0	0

Table 106 Requirement of Educational Facilities, Rest of LPA

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION	NO. REQUIRED FOR 2041 POPULATION
1	Primary Schools	421	106	162
2	High Schools	108	71	108
3	Higher Secondary Schools	48	71	108

4	Engineering Colleges	4	0	0
5	Medical Colleges	0	0	0

22.2 HEALTH INFRASTRUCTURE

Health system infrastructure improves effectiveness, safety, timeliness, patient-centeredness, access and efficiency. Inadequacies in health system infrastructure, limit access and contribute to poor quality of care and outcomes, particularly among vulnerable population groups.

Table 107 Health Infrastructure

S.NO.	HOSPITALS AND PHCS	NUMBERS
1	Government Hospital and Medical College Hospital	2
2	Primary Health Centre	17

Table 108 Standard for Health Infrastructure (URDPFI)

S.NO.	TYPE OF HEALTH FACILITIES	POPULATION SERVED	REQUIRED NUMBERS FOR 2021 POPULATION
1	Government Hospital	2,50,000	8
2	Primary Health Centre (Urban)	50,000	40

Table 109 Health Facilities - Tiruppur Corporation:

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION	NO. REQUIRED FOR 2041 POPULATION
1	Primary Health Centre	18	11	20
2	Hospitals	4	4	8

Table 110 Health Facilities-Thirumuruganpoondi Municipality

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION	NO. REQUIRED FOR 2041 POPULATION
1	Primary Health Centre	0	4	7
2	Hospitals	1	1	1

Table 111 Health Facilities-Palladam Municipality

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION	NO. REQUIRED FOR 2041 POPULATION
1	Primary Health Centre	1	5	9
2	Hospitals	4	1	1

Table 112 Health Facilities-Rest of LPA

S.NO.	DESCRIPTION	EXISTING NUMBERS	NO. REQUIRED FOR 2021 POPULATION	NO. REQUIRED FOR 2041 POPULATION
1	Primary Health Centre	36	53	81
2	Hospitals	0	5	8

22.3 OTHER ESSENTIAL INFRASTRUCTURES

Parks, playgrounds and open spaces are 'lung' of the city. These public spaces provide better relaxation and quality of urban environment. Public sports facilities have played a very important role in promoting physical activity and participation in leisure sports activities. Therefore, there have been significant efforts to continue to improve the image of leisure sports and pursue the amelioration of service quality of public sports facilities.

Assuming 12 sq.m per person, Corporation Park space required for the projected period 2041 is 35.10 sq.km.

According to the URDPFI Guidelines on location of fire station, it is recommended to have a fire station for every 2 lakh population with a radius of 5-7 km.

Fire and rescue service station is located in the core city. With the increase in population density, it is recommended to provide a fire station.

Standard for Fire Station

Table 113 Standards for Fire Station (URDPFI)

S.NO.	DESCRIPTION	STANDARD	AREA (HA)
1	Sub-Fire Station	Within 3-4 km radius	6.0
2	Fire Station	1 per 2 lakh population or 5-7 km radius	1.0

22.4 LAND REQUIREMENT FOR SOCIAL INFRASTRUCTURE

S.NO.	DESCRIPTION	TIRUPPUR CORPORATION		THIRUMURUGANPOONDI		PALLADAM		REST OF LPA		TOTAL LPA	
		A	B	A	B	A	B	A	B	A	B
1	Primary Schools	186	74.4	4	1.6	8	3.2	0	0	198	0.79
2	Higher Secondary Schools	177	318.6	3	5.4	5	9	0	0	185	3.32
3	Medical Colleges	1	15	0	0	0	0	8	120	9	1.35
4	Primary Health Centre	9	2.7	1	0.3	0	0	0	0	10	0.03
5	Hospitals	4	36	0	0	0	0	0	0	4	0.36
6	Park		2504.01		85.65		108.75		811.48	0	35.10
7	Fire Station	0	0	0	0	0	0	8	8	8	0.08
8	Police Station	2	3	0	0	0	0	3	4.5	5	0.08
			2953.71		92.95		120.95		943.98		41.12
A: Additional No. required for 2041 population | B: Required area in 2041 in Hectare											

Table 114 Social Infrastructure Demand for 2041, Tiruppur LPA

22.5 SPORTS INFRASTRUCTURE PROPOSAL

Location for Sports Infrastructure Facilities is identified in Naranapuram Village, Palladam Municipality and Avinashi

Land Required – 6 to 7 acres

Other Facilities include Athletic Track, Gallery, Football Playfield, Volley ball, Basketball, Kabaddi and Kho-Kho courts

- Land should be in Higher elevation without water stagnation
- No H.T and L.T lines inside the site
- Site should have proper communication and transport facilities
- Should be Government Land
- Land shall not be owned by HR&CE and Water Resources Departments.
- Existing Land Use –Public and Semi Public
- Accessibility – Palladam - Tiruppur Road
- S.F.No.410 & 411
- Location: 11.014375°, 77.295386°

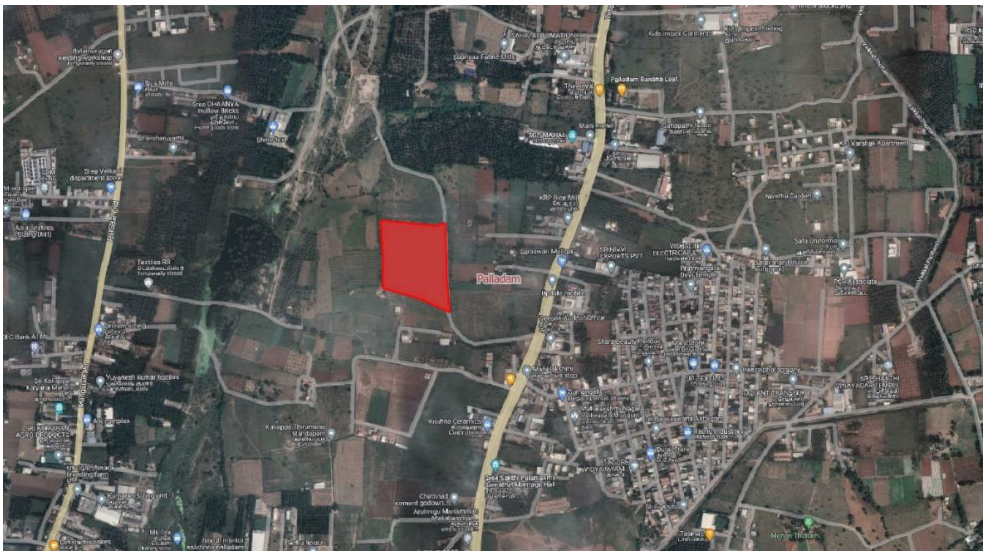
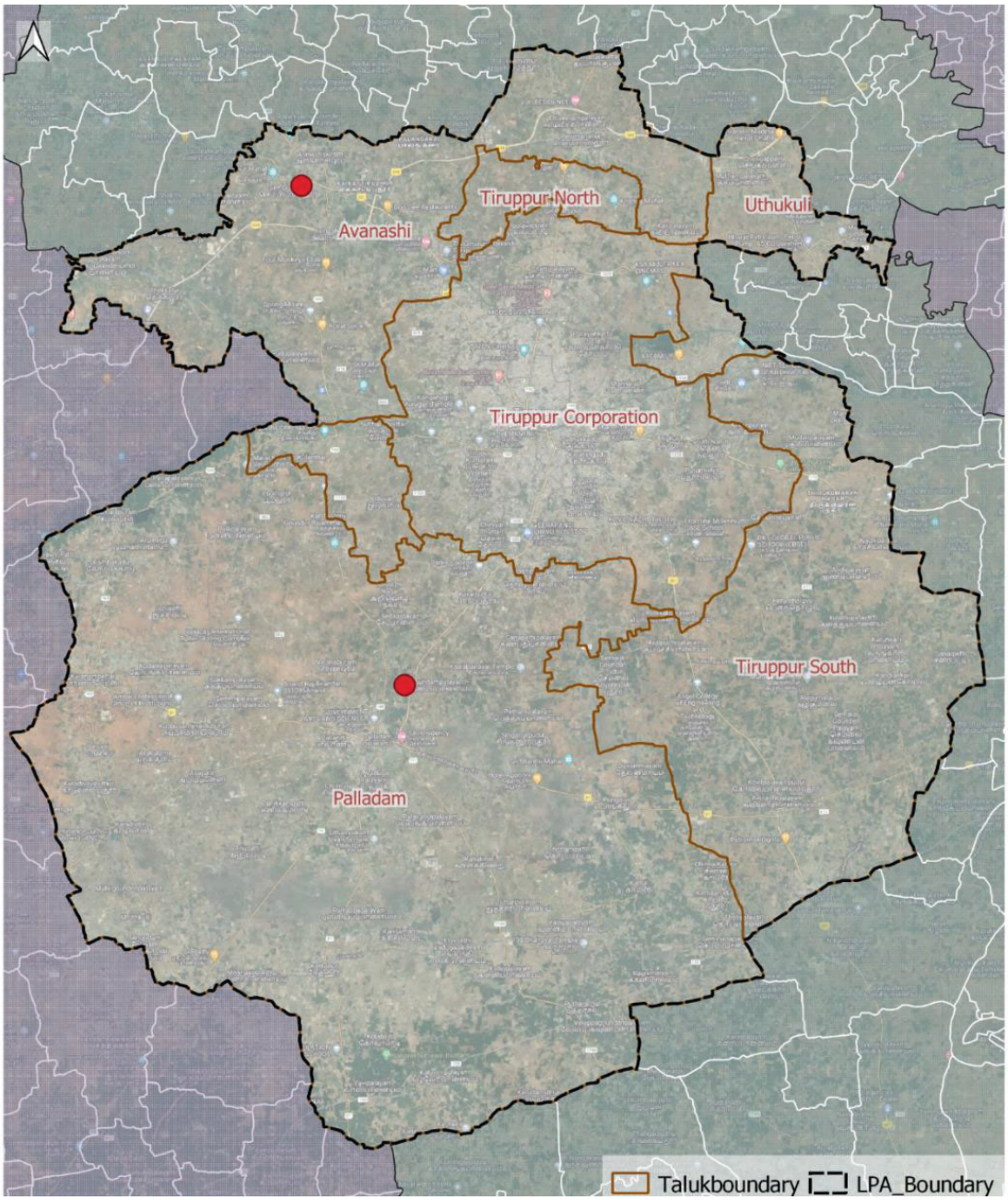


Figure 41 Proposed area for stadium

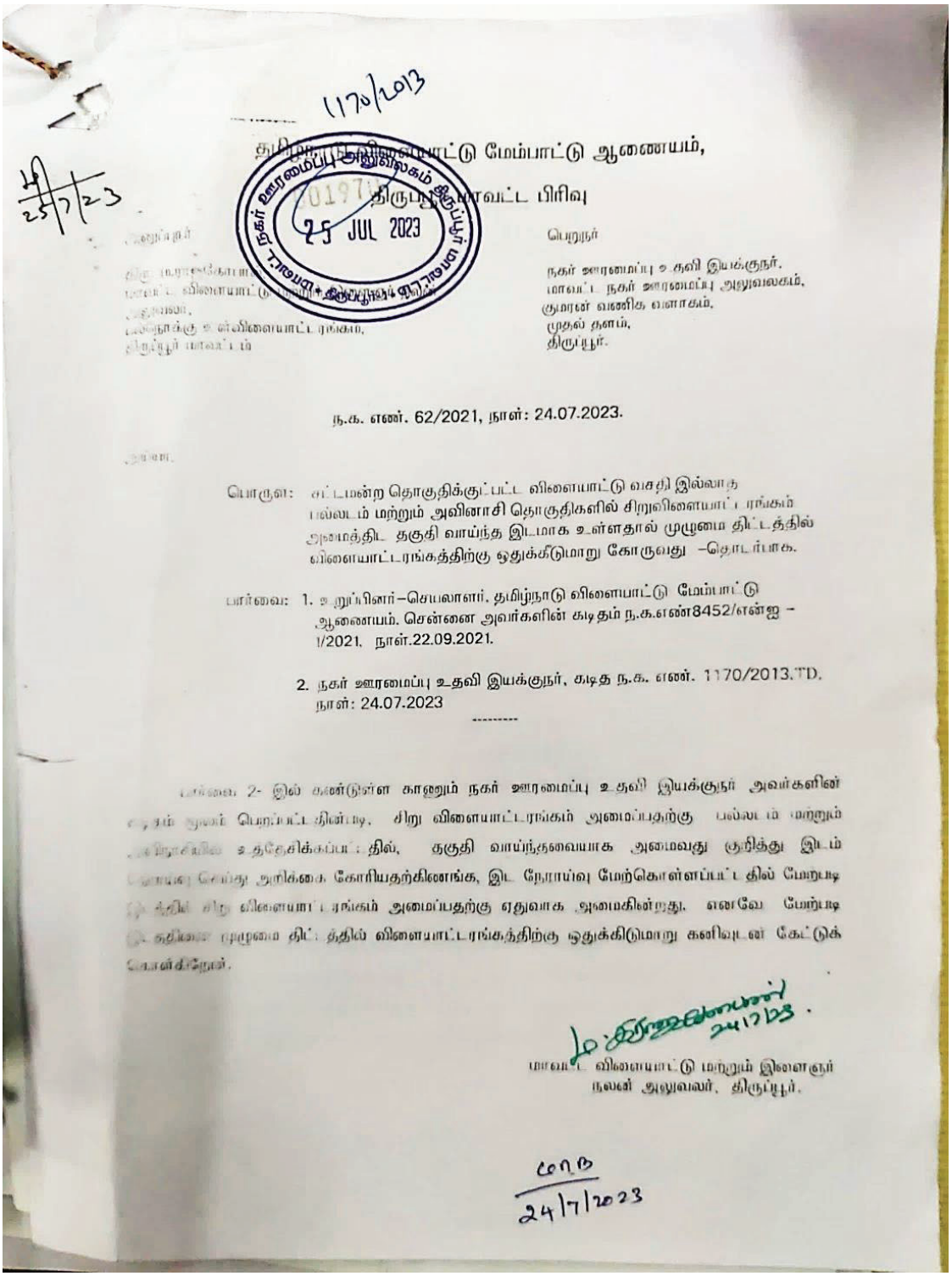
- Location for Sports Infrastructure Facilities is identified in Avinashi Town Panchayat
- Existing Land Use –Public and Semi Public
- Accessibility – Annur Avinashi Road

- Area – 6.6 acres
- Location: 11.1901350°, 77.2589288°

Figure 42 Proposed area for stadium



Map 83 Proposed sports facilities, Tiruppur LPA



1170/2013

தமிழ்நாடு விளையாட்டு மேம்பாட்டு ஆணையம்,

திருப்பூர் மாவட்ட பிரிவு

25 JUL 2023

நகர் ஊரமைப்பு அலுவலகம்

பெறுநர்

நகர் ஊரமைப்பு உதவி இயக்குநர்,
மாவட்ட நகர் ஊரமைப்பு அலுவலகம்,
குமரன் வணிக வளாகம்,
முதல் தளம்,
திருப்பூர்.

ந.க. எண். 62/2021, நாள்: 24.07.2023.

பொருள்: சட்டமன்ற தொகுதிக்குட்பட்ட விளையாட்டு வசதி இல்லாத பல்லடம் மற்றும் அவினாசி தொகுதிகளில் சிறுவிளையாட்டரங்கம் அமைத்திட தகுதி வாய்ந்த இடமாக உள்ளதால் முழுமை திட்டத்தில் விளையாட்டரங்கத்திற்கு ஒதுக்கீடுமாறு கோருவது –தொடர்பாக.

பார்வை: 1. உறுப்பினர்–செயலாளர், தமிழ்நாடு விளையாட்டு மேம்பாட்டு ஆணையம், சென்னை அவர்களின் கடிதம் ந.க.எண்8452/என்ஐ -1/2021, நாள்.22.09.2021.

2. நகர் ஊரமைப்பு உதவி இயக்குநர், கடித ந.க. எண். 1170/2013/TD, நாள்: 24.07.2023

பார்வை 2- இல் காண்டுள்ள காணும் நகர் ஊரமைப்பு உதவி இயக்குநர் அவர்களின் கடிதம் மூலம் பெறப்பட்டதின்படி, சிறு விளையாட்டரங்கம் அமைப்பதற்கு பல்லடம் மற்றும் அவினாசியில் உத்தேசிக்கப்பட்டதில், தகுதி வாய்ந்தவையாக அமைவது குறித்து இடம் நேரடியாக சென்று அறிக்கை கோரியதற்கிணங்க, இட நேராய்வு மேற்கொள்ளப்பட்டதில் மேற்படி இரு இடங்களில் சிறு விளையாட்டரங்கம் அமைப்பதற்கு ஏதுவாக அமைகின்றது. எனவே மேற்படி இரு தகுதியான முழுமை திட்டத்தில் விளையாட்டரங்கத்திற்கு ஒதுக்கிடுமாறு கனிவுடன் கேட்டுக் கொள்கிறேன்.

24/7/23

மாவட்ட விளையாட்டு மற்றும் இளைஞர் நலன் அலுவலர், திருப்பூர்.

24/7/2023

Figure 43 Proposed area for sports facilities G.O.

22.6 SHORT, MID AND LONG TERM PROPOSALS - SOCIAL INFRASTRUCTURE PROPOSALS

Table 115 Proposals-Social Infrastructure

SHORT TERM PROPOSALS	MEDIUM TERM PROPOSALS	LONG TERM PROPOSALS
Schools need to be proposed in the **underserved areas** increasing the literacy rate of villages in the LPA.	**New Colleges** should be proposed along the lines of Textiles for improving the skilled Labours in the LPA.	**University like Educational Hub** for Planning Area
Primary Health Centres need to be proposed covering a cluster of Villages	**Additional Medical College with Hospital** need to be proposed for the future demand.	**Additional Hospital** shall be proposed for the LPA for the future Demand.
Develop **small parks and recreational** spaces.	Lakefront developments will increase the recreational space while conserving the water bodies.	Nanjarayan Bird Sanctuary and its surrounding shall be developed as recreation hub increasing the tourism potential.

Sports infrastructure need to be developed in Palladam and Avanashi in the identified Lands.		

23

BLUE GREEN INFRASTRUCTURE

23 BLUE GREEN INFRASTRUCTURE

23.1 URBAN FORESTRY

The development of urban forestry is a multifaceted process crucial for the sustainable growth of cities. It begins with a comprehensive assessment of the existing urban tree cover and green spaces, followed by the establishment of clear goals and objectives. A well-defined urban forest management plan, encompassing strategies for tree selection, planting, and maintenance, guides the way forward.

Native species suited to local conditions are prioritized, and community engagement is fostered through educational programs and participation in tree planting initiatives. The creation and upkeep of urban parks, greenways, and recreational areas contribute not only to residents' well-being but also to the urban forest ecosystem.

Sustainable funding mechanisms, combined with a commitment to biodiversity conservation and climate resilience, help cities adapt to changing environmental conditions while promoting a culture of environmental stewardship. Ultimately, urban forestry enhances the sustainability and livability of urban environments, ensuring that cities remain vibrant, green, and resilient for generations to come.

- Location for Urban Forestry is identified in 1 Location

Village Name	Iduvai Village
Area	1.00 Acre
Surey No.	299pt
Geo Coordinates	11° 3'18.35"N, 77°17'11.66"E
Land use in Existing Master Plan	Agricultural use zone

- Currently, Creation of Maragathapooncholai in Pethampalayam, Ganapathipalayam (1 Ha) is the Urban Forestry activity pertaining to Tiruppur Forest Division. (Survey no. 317/1)
- Buffer zone to be provided around Nanjarayan Bird Santuary for an area of 10-20 Ha

By Email

☎ : 04252 – 232523
✉: dfo.tntpr@nic.in

TAMIL NADU FOREST DEPARTMENT

From

Thiru. Devendra Kumar Meena, IFS.,
Deputy Director,
Anamalai Tiger Reserve,
Tiruppur Forest Division,
Udumalpet - 642 126.

To

The Assistant Director /
Member Secretary,
District Town and Country Planting Office,
Tiruppur Local Planning Authority,
Tiruppur – 641 601.

C.No. 4572/2022/P1, Dated. 13.12.2023

Sir,

Sub : Preparation of GIS based Master Plan – District Town and Country Planning Office – Tiruppur District – Tiruppur Local Planning Authority – Incorporation of existing and new proposals of Urban Forestry in Tiruppur Local Planning Area- Details requested – Report submission of - Regarding.

Ref : The Assistant Director, District Town and Country Planning Office, Tiruppur Roc.No.1170/2013/TD, dt.25.07.2023 and 13.12.2023

******

With reference to the above, I submit to state that the details of Urban Forestry activity pertaining to Tiruppur Forest Division are given below in respect of Anamalai Tiger Reserve, Tiruppur Forest Division as on 07.08.2023.

Sl. No.	Name of the Scheme	Year	Village / Taluk	Survey No.	Area in Ha.	GPS location	Remarks
1.	Creation of Maragatha Pooncholai Scheme (G.O copy enclosed)	2023-24	Ganapathypalayam village Panchyat, Peththaampalayam hamlet	317/1	1 Ha.	N 11.004593 E 77.335898	Works implemented during 2023-24. A detail of works are enclosed.

I also stated that, the Nanjarayan Bird Sanctuary was declared by Government of Tamil Nadu and it falls under urban area. There is a plan to develop part of buffer area of this bird sanctuary as various theme based parks (i.e. 10-20 Ha.) in next 3-4 years. This may be treated as urban forestry in master plan.

I also submit that there is no other planned urban forestry proposal for next 10 to 20 years under consideration. If such activity is sanctioned by Government of Tamil Nadu in future, it will be intimated accordingly.

I also state that the proposed urban forestry area activities of this master plan may be entrusted to Forest Department.

With regards to selecting of land patches to be included in master plan following OSR Lands are identified for the Creation of Urban Forestry by DTCP.

Sl. No.	Taluk	Revenue Village	SF Nos.	Location	OSR Area
1.	Tiruppur South	Iduvoi	299	11°03'15.9"N 77°17'11.9"E	1.025 Acre

The above selected area may be taken up for creation of urban forestry. However, the type of species to be planted may be decided after checking soil characteristics and other relevant parameters.

Yours Sincerely,

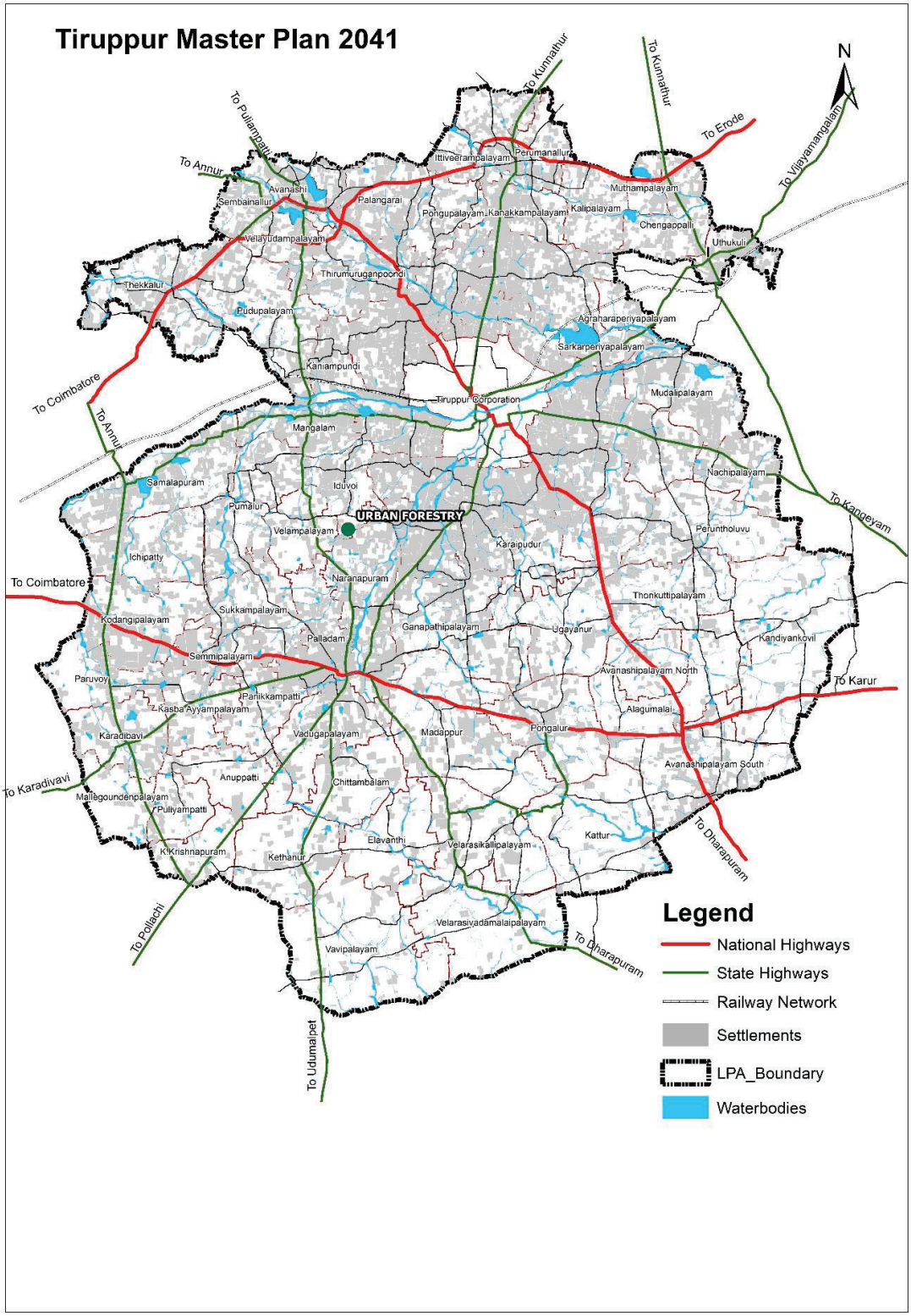
Sd/- Devendra Kumar Meena,
Deputy Director,
Anamalai Tiger Reserve,
Udumalpet.

-True copy/ By order-

Superintendent

Z:\2023 - 2024\Planning\Draft\English 2023-24.docx

Figure 44 Creation of Maragatha poonchoolai G.O.


Tiruppur Master Plan 2041
N
To Kunnathur
To Kunnathur
To Erode
To Vijayamangalam
To Pullampatti
To Annur
Ittiveerampalayam
Perumanallur
Avanashi
Sembainallur
Palangarai
Pongupalayam
Kanakkampalayam
Kalipalayam
Muthampalayam
Chengappalli
Uthukuli
Velayudampalayam
Thirumuruganpoondi
Thekkalur
Pudupalayam
Agraharaperiyapalayam
Sarkarperiyapalayam
Kaniampundi
Tiruppur Corporation
Mudalipalayam
To Coimbatore
To Annur
Mangalam
Samalapuram
Iduvoi
Nachipalayam
To Kangeyam
Pumalur
URBAN FORESTRY
Velampalayam
Perumtholuvu
Karaipudur
Ichipatty
To Coimbatore
Naranapuram
Thonkuttipalayam
Kodangipalayam
Sukkampalayam
Ganapathipalayam
Ugayanur
Palladam
Kandiyankovil
Semmipalayam
Avanashipalayam North
Paruvoy
To Karur
Panikkampatti
Alagumalai
Z.Kasba Ayyampalayam
Karadivavi
Vadugapalayam
Madappur
Pongalur
Avanashipalayam South
To Karadivavi
Anuppatti
Chittambalam
Mallegoundenpalayam
Pullyampatti
Kattur
To Dharapuram
Elavanthi
Velarasikallipalayam
K.K.rishnapuram
Kethanur
To Pollachi
Velarasivadamalaipalayam
To Dharapuram
Vavipalayam
To Udumalpet
Legend
National Highways
State Highways
Railway Network
Settlements
LPA_Boundary
Waterbodies

Map 84 Proposed urban forestry location, Tiruppur LPA

GPS Map Camera
Tiruppur, Tamil Nadu, India
Unnamed Road, Tamil Nadu 641663, India
Lat 11.053551°
Long 77.286866°
29/12/23 02:41 PM GMT +05:30
Google

23.2 BIRD SANCTUARY

Nanjarayan Bird Santuary is proposed in the Nanjarayan Lake with footpaths, viewing decks, towers and other facilities improving the tourism in the planning area.

23.3 IDENTIFICATIONS OF CONSERVATION ZONES

- Major Water Bodies in the LPA areas are Nanjarayan Lake, Andipalayam Lake, Samalapuram Lake, Thamaraikulam, Sangaman Lake, Moolikulam, Manikapuram Lake, Noyal River and Nallaru River.
- Buffer zones are proposed to be created around water bodies conserving it and also increasing the green infrastructure by proposing parks, riverfront/lakefront developments, Footpath provisions, Bund strengthening, viewing towers/decks etc.

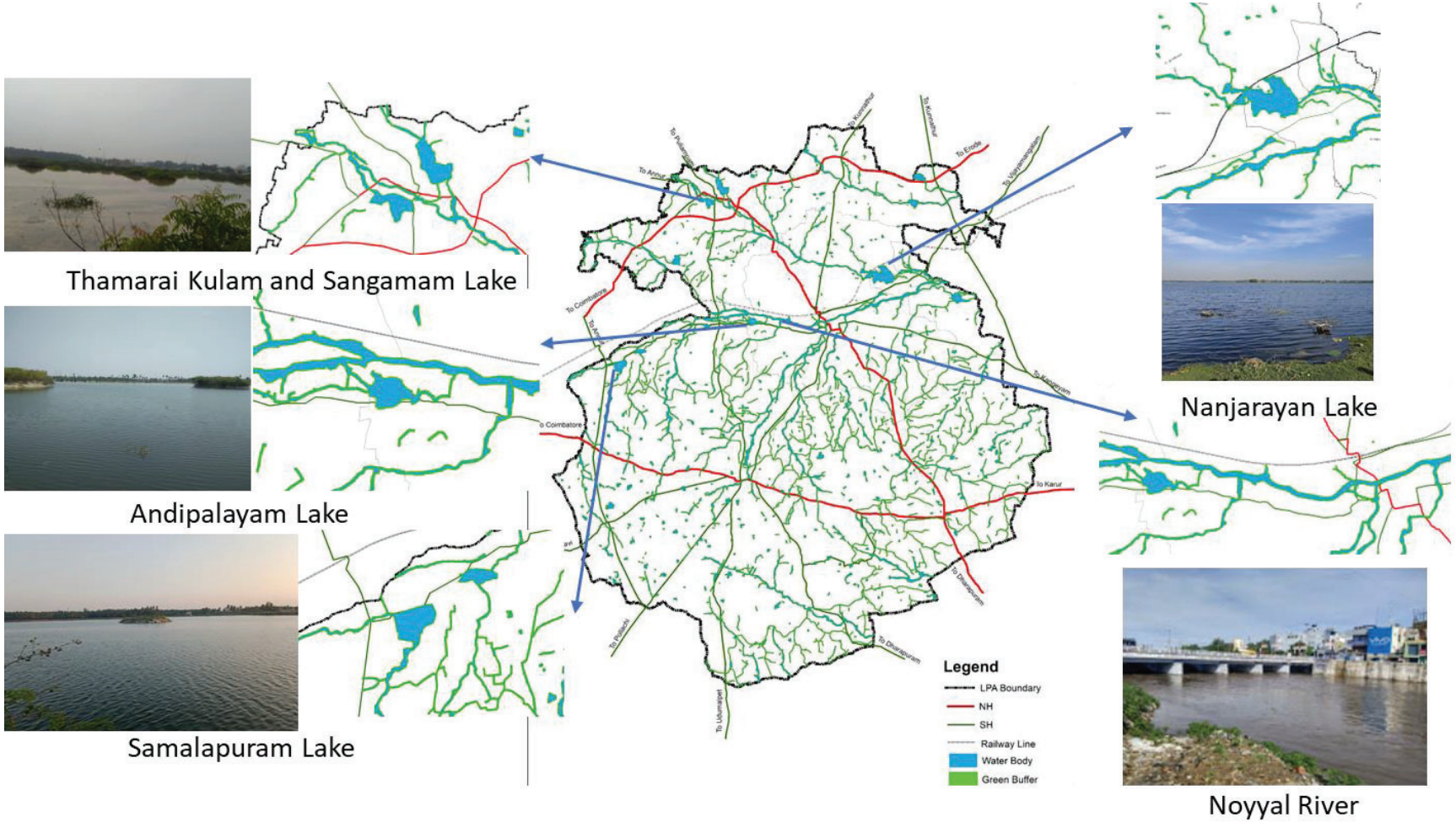


Figure 45 Waterbodies in Tiruppur LPA

Blue infrastructure refers to the network of natural and artificial water bodies, such as rivers, lakes, wetlands, and reservoirs, that provide critical ecosystem services and support biodiversity. Green infrastructure, on the other hand, includes natural and human-made green spaces like parks, forests, and green roofs that contribute to environmental sustainability and human well-being. The conservation and integration of these two types of infrastructure are essential for holistic and sustainable urban development. Here's how they can be harmonized:

1. Water Quality Improvement:

Green infrastructure can act as a buffer between urban areas and water bodies. Wetlands and green corridors can filter pollutants from stormwater runoff before it enters rivers or lakes, thereby improving water quality.

2. Flood Mitigation:

Wetlands, floodplains, and vegetated riverbanks, which are part of green infrastructure, can absorb excess water during heavy rainfall, reducing the risk of flooding downstream and safeguarding blue infrastructure.

3. Biodiversity Enhancement:

Integrating green and blue infrastructure can create habitats for a diverse range of species. Riparian zones and green corridors along water bodies support wildlife and promote biodiversity.

4. Climate Resilience:

Blue-green infrastructure can help cities adapt to climate change. Urban forests and green spaces can reduce urban heat islands and cool down the environment, while blue infrastructure can store excess water during extreme weather events.

5. Recreational Opportunities:

Parks and green spaces adjacent to water bodies provide recreational opportunities like boating, fishing, and birdwatching, enhancing the quality of life for residents.

6. Cultural and Aesthetic Value:

The integration of green and blue infrastructure can create aesthetically pleasing landscapes that hold cultural and historical significance, contributing to a sense of place and identity.

7. Education and Awareness:

Parks and green spaces near water bodies can serve as educational hubs, raising awareness about the importance of water conservation and ecosystem protection.

8. Sustainable Transportation:

Green corridors and pedestrian pathways along water bodies offer sustainable transportation options, encouraging walking and cycling while reducing the reliance on automobiles.

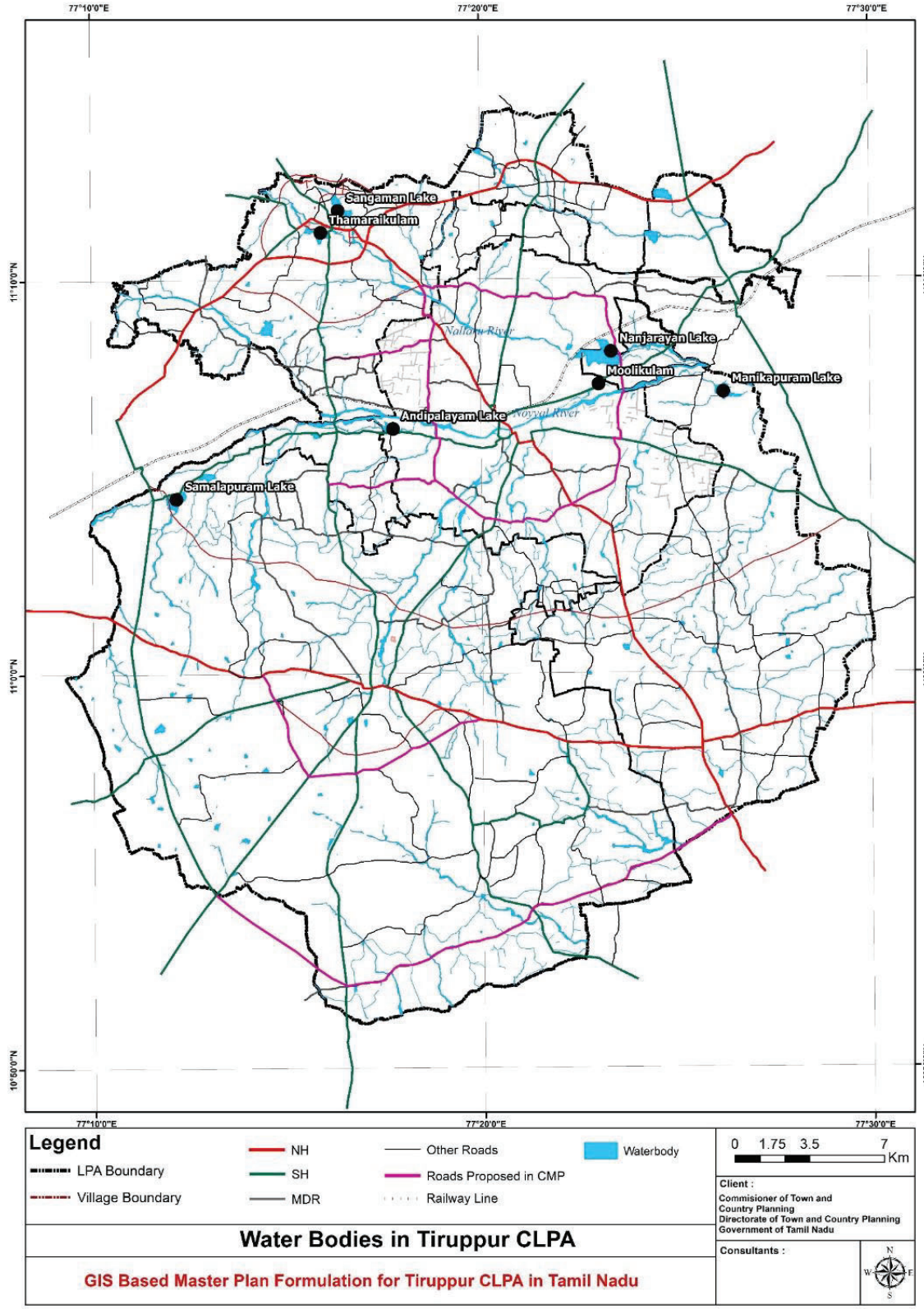
9. Community Engagement:

Involving local communities in the management and conservation of blue-green infrastructure can foster a sense of ownership and responsibility, leading to better protection and maintenance.

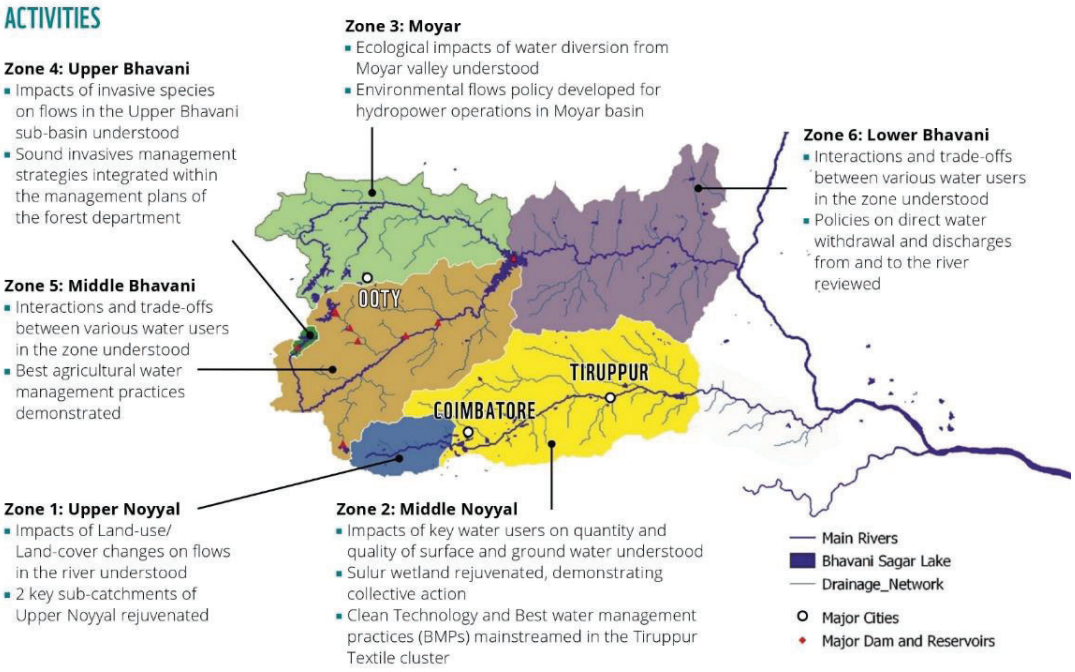
10. Economic Benefits:

The integration of blue and green infrastructure can boost tourism, stimulate local economies, and increase property values in areas with enhanced natural amenities.

In summary, the conservation and harmonization of blue and green infrastructure are crucial for building resilient and sustainable cities. This approach not only safeguards vital water resources but also creates healthier, more vibrant urban environments that benefit both people and nature.



Map 85 Waterbodies, Tiruppur LPA



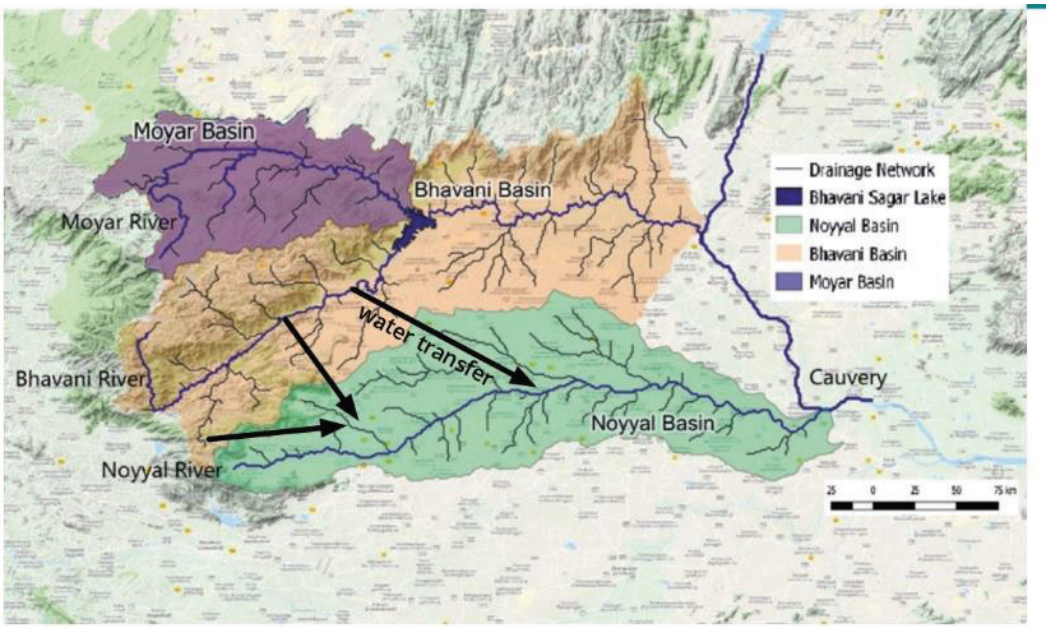


Figure 46 Ongoing Works in Noyyal River

Noyyal River Restoration Works

The Noyyal River, a vital waterway in the Tiruppur region of India, has faced significant environmental challenges in recent years. Pollution, industrial effluents, and over-exploitation of its waters have led to severe degradation. To address these issues and restore the river's health, comprehensive restoration works are essential.

The allocation of 1200 crores by both the Central and State Governments for the restoration of the Noyyal River is a significant and promising development. This funding commitment underscores the recognition of the environmental challenges facing the Noyyal River and the determination to address them effectively. Here is how these allocated funds can be utilized:

1. Pollution Control and Water Quality Improvement (Approximately 40% of the funds): These funds can be used to enforce and enhance pollution control measures, including the upgrade and expansion of wastewater treatment plants, the implementation of stricter regulations on industrial and domestic discharges, and regular monitoring of water quality.

2. Erosion and Riverbank Stabilization (Approximately 15% of the funds): A portion of the allocated funds can be dedicated to erosion control and riverbank stabilization efforts, including engineering solutions and riparian restoration, which will help prevent further degradation.

3. Afforestation and Biodiversity Conservation (Approximately 20% of the funds): Significant funding can be invested in afforestation projects along the riverbanks to prevent soil erosion, improve water quality, and enhance the biodiversity of the river's ecosystem.

4. Water Recharge and Sustainable Land Use (Approximately 10% of the funds): Allocation can be directed toward promoting water recharge systems, sustainable land use practices, and rainwater harvesting initiatives to replenish the river's flow during dry seasons.

5. Public Awareness and Community Engagement (Approximately 5% of the funds): Funding can be earmarked for public awareness campaigns, community education, and stakeholder engagement to ensure local communities are informed and involved in the restoration process.

6. Monitoring and Evaluation (Approximately 5% of the funds): A portion of the funds can be allocated to establish a robust monitoring and

evaluation framework to assess the impact of the restoration efforts, ensuring that they are effective and accountable.

7. Contingency and Emergency Funds (Approximately 5% of the funds): It's prudent to set aside a portion of the funds for unforeseen contingencies or emergencies that may arise during the restoration works.

8. Administrative Costs (Approximately 5% of the funds): Administrative costs, such as project management, oversight, and reporting, can be budgeted to ensure the efficient execution of the restoration project.

The allocation of such a substantial budget reflects the commitment to restoring the Noyyal River and underscores the importance of effective governance, cooperation between Central and State Governments, and environmental conservation. The success of the restoration project will depend on careful planning, transparent utilization of funds, community involvement, and regular monitoring to ensure that the river is rejuvenated to its full potential, benefiting both the environment and the communities that depend on it.

Assessment and Data Collection:

A thorough baseline assessment of the river's current condition, including water quality, biodiversity, and ecosystem health, has been conducted. Historical data and satellite imagery have been utilized to understand the extent of degradation.

Stakeholder Engagement:

The involvement of key stakeholders, including local communities, governmental bodies, environmental organizations, and industries, is crucial for the success of the restoration efforts. Public meetings, consultations, and partnerships have been established to ensure collaborative decision-making.

Restoration Strategies:

Several strategies have been identified to restore the Noyyal River:

1. Pollution Control: Implement stringent regulations and monitoring mechanisms to control industrial and domestic pollution discharges into the river. Encourage industries to adopt cleaner production processes.

2. Wastewater Treatment: Construct and upgrade wastewater treatment plants to ensure that effluents meet environmental standards before being released into the river.

3. Afforestation: Launch afforestation programs along the riverbanks to prevent soil erosion, enhance the river's water-holding capacity, and improve biodiversity.

4. Erosion Control: Implement riverbank stabilization measures to prevent further erosion and degradation of the riverbanks.

5. Riparian Restoration: Restore the riparian zones by planting native vegetation, creating buffer areas, and promoting sustainable land use practices.

6. Water Recharge: Promote rainwater harvesting and groundwater recharge systems to replenish the river's flow during dry seasons.

7. Public Awareness: Conduct extensive public awareness campaigns to educate local communities about the importance of the Noyyal River and encourage responsible water use.

Project Timeline and Funding:

The restoration works will be carried out in phases over a multi-year timeline. Funding for the project will come from a combination of government grants, private sector contributions, and international aid organizations. A budget and financing plan have been developed to ensure the sustainable execution of these initiatives.

Monitoring and Evaluation:

A comprehensive monitoring and evaluation framework will be established to assess the effectiveness of the restoration efforts. Regular assessments of water quality, ecosystem health, and the impact on surrounding communities will guide adjustments and improvements to the restoration works.

The restoration of the Noyyal River is a critical endeavor to safeguard the environment, promote sustainable water management, and improve the quality of life for the communities that depend on it. These efforts aim to restore the Noyyal River to a state of health and vitality, ensuring its well-being for generations to come. Public involvement, careful planning, and a commitment to environmental stewardship are at the core of this restoration project.

Figure 47 Water front development, Tiruppur LPA

Implementation model

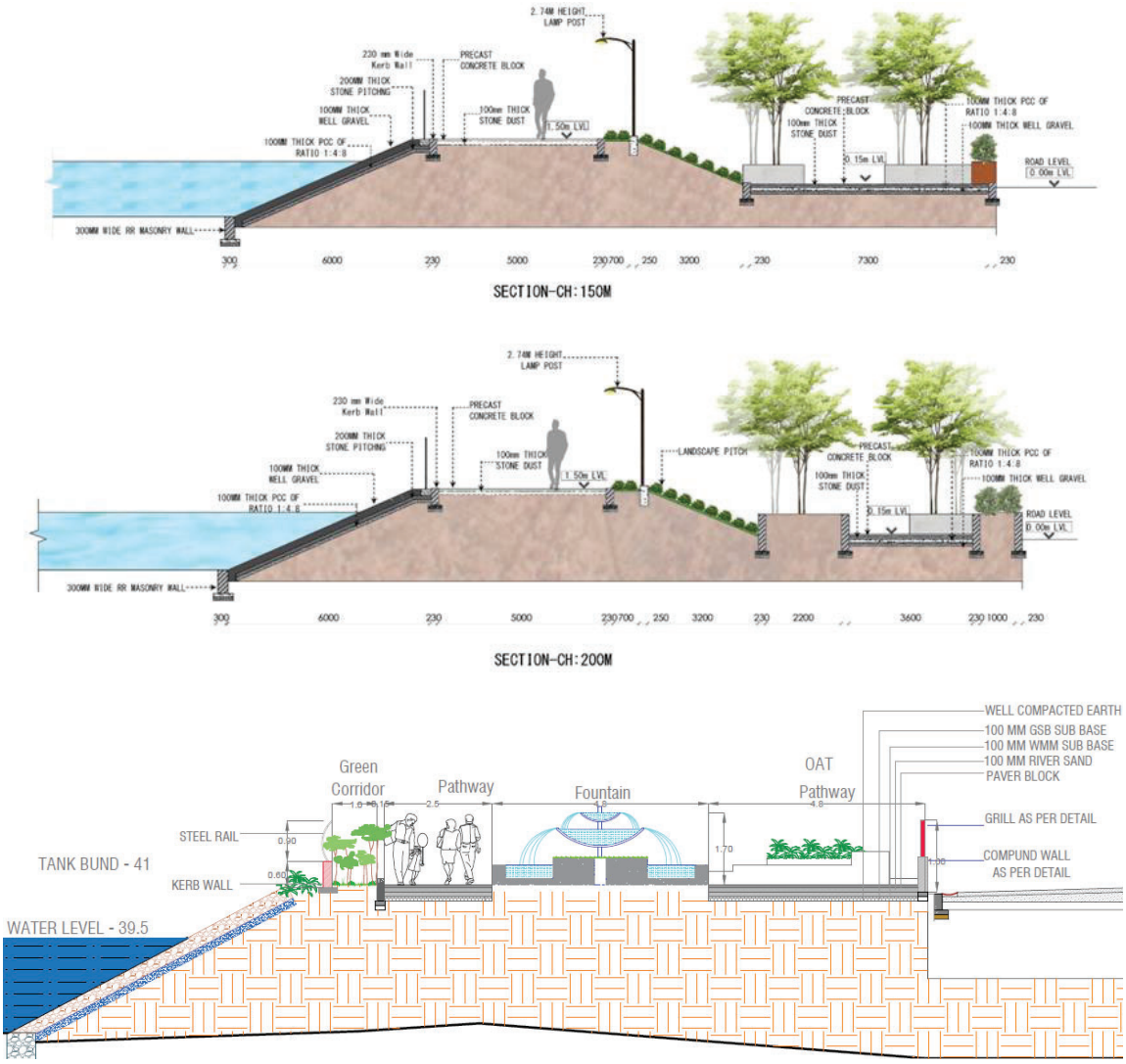


Figure 48 Implementation model of water front development, Tiruppur LPA

Figure 49 Conceptual water front development, Tiruppur LPA

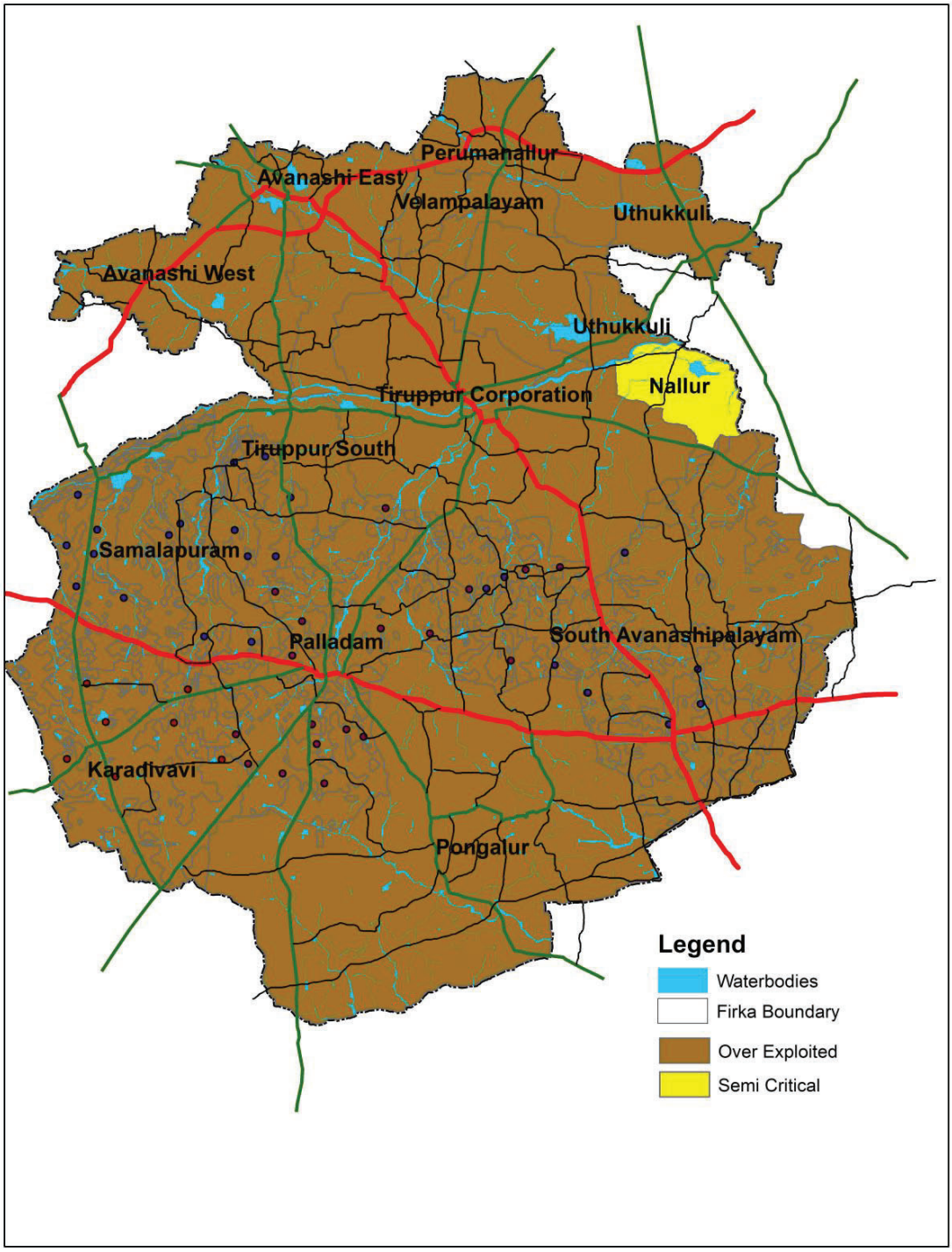
Figure 50 Conceptual water front development, Tiruppur LPA

23.4 SPONGE CITY

A "sponge city" is a concept and urban planning approach that focuses on the sustainable management of water resources and climate resilience in urban areas. The term "sponge city" is often associated with China, which has been at the forefront of implementing this innovative urban planning strategy, but the principles of sponge cities are relevant and adaptable to various regions facing water-related challenges worldwide.

Components

- Parks,
- Drainage Pavements,
- Rain Gardens,
- Infiltration And
- Retention Wells,
- Urban Gardens
- Plantations,
- Green Walls
- Green Roofs



Map 86 Status of ground water level, Tiruppur LPA

Key elements and objectives of a sponge city typically include:

1. Water Management: Efficient and sustainable water management is at the core of a sponge city. This involves capturing, storing, purifying, and reusing rainwater and stormwater to reduce the risk of flooding, enhance water quality, and ensure a sustainable water supply.

2. Green Infrastructure: Integrating green infrastructure, such as parks, wetlands, green roofs, and permeable pavements, into urban design to absorb rainwater and provide natural filtration. These features contribute to improved urban aesthetics and provide spaces for the community.

3. Climate Resilience: Designing the city to be resilient to extreme weather events, including floods and droughts, by managing water effectively and reducing vulnerability to climate change impacts.

4. Ecosystem Services: Incorporating natural systems and ecological services into the urban environment to support biodiversity and enhance the overall quality of life for residents.

5. Water Recycling and Reuse: Implementing advanced water recycling and reuse systems, which treat and repurpose wastewater for non-potable uses, such as irrigation, industrial processes, and toilet flushing.

6. Reduced Urban Heat Island Effect: Promoting strategies to mitigate the urban heat island effect, such as planting trees and greenery, which also contribute to improved stormwater management.

7. Smart Technology Integration: Leveraging technology, such as sensors and data analytics, to monitor and manage water resources more efficiently. This includes early warning systems for floods and water quality monitoring.

8. Community Engagement: Involving the local community in the planning and implementation of sponge city initiatives, fostering awareness and participation in water management and climate resilience.

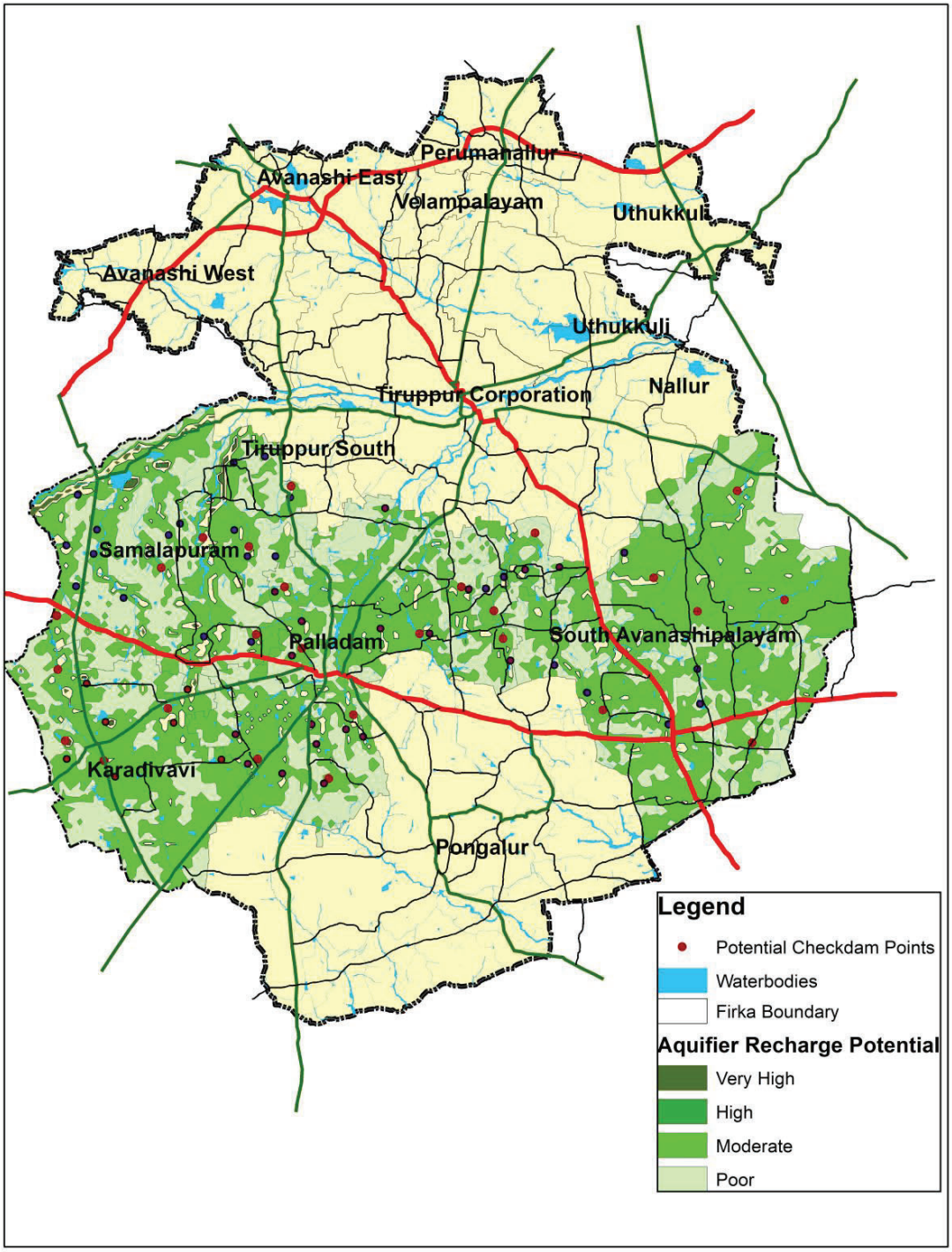
9. Multi-sectoral Collaboration: Encouraging collaboration between government agencies, the private sector, academia, and civil society to pool resources, knowledge, and expertise for effective sponge city planning and development.

The benefits of a sponge city approach include reduced flood risks, improved water quality, enhanced urban aesthetics, better air quality, increased biodiversity, and overall increased climate resilience. This approach

not only helps cities adapt to the challenges posed by climate change but also enhances the livability and sustainability of urban areas.

As urbanization continues and climate change impacts become more pronounced, the concept of a sponge city has gained increasing relevance and popularity as a proactive approach to addressing water-related challenges in urban environments.

Figure 51 Conceptual sketch of sponge cities


Perumanallur
Avanashi East
Velampalayam
Uthukkuli
Avanashi West
Uthukkuli
Nallur
Tiruppur Corporation
Tiruppur South
Samalapuram
Palladam
South Avanashipalayam
Karadivavi
Pongalur
Legend
Potential Checkdam Points
Waterbodies
Firka Boundary
Aquifier Recharge Potential
Very High
High
Moderate
Poor

- Total no. of Firkas in LPA: 12 No.
- Firkas classified as Over exploited : 11 No.
- Firkas Classified as Semi Critical : 1 No.
- Percentage of LPA land studied for recharge Potential : 44.4%
- Very high recharge potential for the above : 0.01 %
- High recharge potential for the above : 3.93 %
- Moderate recharge potential for the above : 56.01 %
- Recharge Pits shall be constructed in high recharge potential area

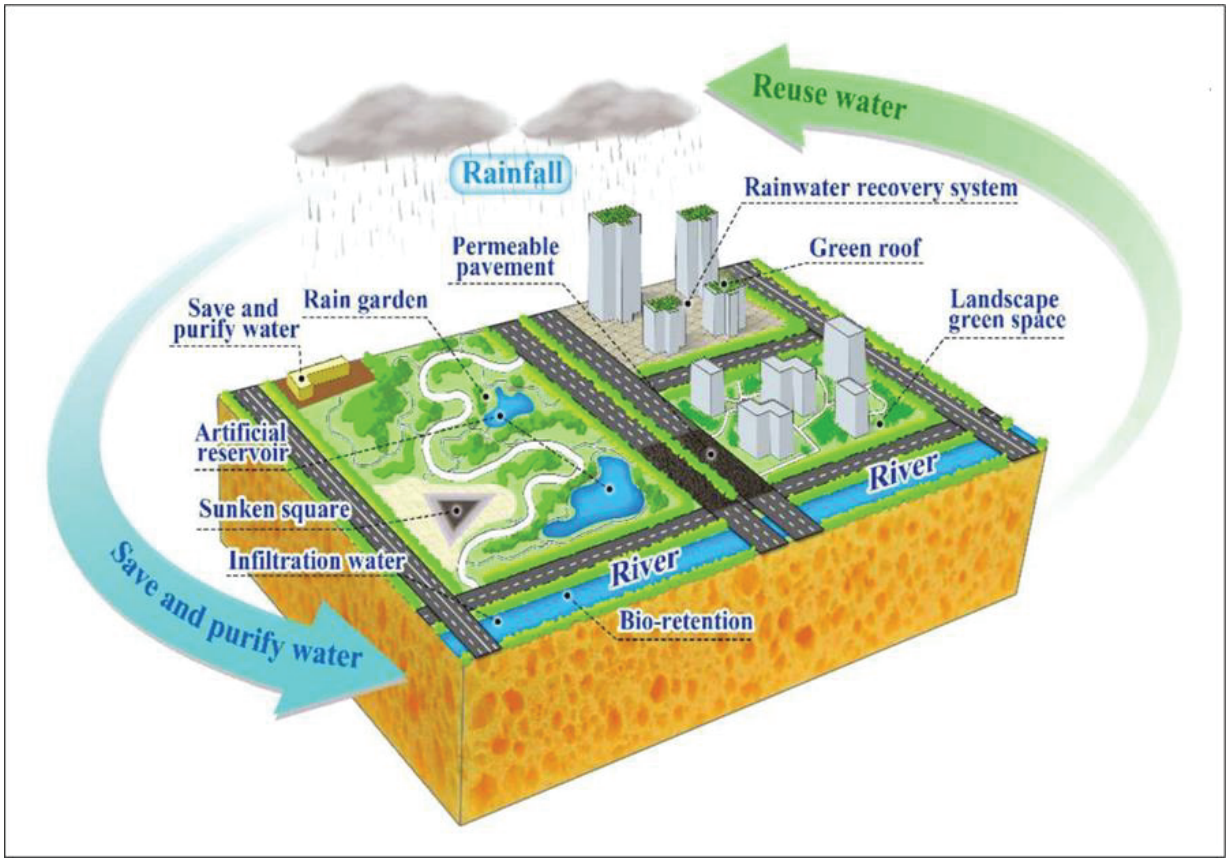


Figure 52 Conceptual sketch of sponge cities

23.5 RESTORATION OF WATER BODIES

Restoration of water bodies through desilting is a critical concept aimed at revitalizing the ecological balance and functionality of lakes, ponds, rivers, and other water reservoirs. Over time, these water bodies accumulate sediment, predominantly silt, adversely affecting their capacity, water quality, and overall health. The desilting process involves the careful removal of this sediment, contributing to the sustainable management and conservation of water resources.

The primary objectives of water body restoration through desilting are multi-faceted. Firstly, the process seeks to improve water quality by eliminating accumulated pollutants within the sediment. Secondly, it aims to enhance the habitats for aquatic flora and fauna, fostering a healthier and more biodiverse ecosystem. Additionally, desilting increases the water storage capacity of the water body, mitigating the risk of flooding during heavy rainfall and ensuring a more reliable water supply for various needs.

To initiate the restoration process, a thorough hydrological assessment is conducted to understand the water flow dynamics and sedimentation patterns. Sediment analysis follows, aiding in identifying potential pollutants within the accumulated material. The core of the restoration involves the use of dredging equipment to carefully remove the sediment without causing harm to the existing ecosystem. Proper disposal methods for the dredged material, which may contain pollutants, are meticulously planned to minimize environmental impact.

Beyond the immediate desilting activities, sustainable measures are implemented to prevent future sedimentation. Erosion control measures, such as stabilizing riverbanks and reforesting degraded areas in the watershed, are crucial to minimize the inflow of sediments into the restored water body. Establishing vegetative buffer zones further aids in maintaining water quality by filtering runoff and preventing soil erosion.

Successful restoration projects involve the active engagement of local communities. Public awareness campaigns educate residents on the importance of water body restoration, fostering a sense of responsibility for the sustainable use and conservation of these vital resources. Inclusive community participation ensures that restoration efforts align with the needs and aspirations of the local population, creating a shared commitment to long-term environmental health and water sustainability.

23.6 INTERLINKING OF TANKS IN THE LPA

Interlinking of water bodies in Tiruppur, specifically Thamaraikulam, Sangamam Lake, Nanjarayan Lake in the north of River Noyyal, Samalapuram Lake, Andipalayam lake, and Moolikulam in the south of River Noyyal, can bring about several environmental, social, and economic benefits. Here are some of the key reasons for the importance of interlinking these water bodies and how it can be achieved:

Importance:

Water Resource Management:

Interlinking helps in optimizing the distribution of water resources among different lakes. This can be crucial for maintaining ecological balance and sustaining the water needs of both urban and rural areas.

Biodiversity Conservation:

Interconnected water bodies can support a more diverse range of aquatic ecosystems and wildlife. It provides habitats for various species of fish, birds, and other aquatic organisms, contributing to biodiversity conservation.

Flood Control:

Interlinking water bodies can assist in managing and controlling floods. During periods of heavy rainfall, excess water from one lake can be channeled to another, preventing inundation and reducing the risk of flood-related damages.

Groundwater Recharge:

Well-planned interlinking can facilitate groundwater recharge. It allows excess water to percolate into the ground, replenishing aquifers and supporting sustainable groundwater levels.

Enhanced Water Quality:

Improved connectivity can facilitate the natural purification of water. As water moves through interconnected lakes, it can undergo natural filtration processes, leading to enhanced water quality.

Recreation and Aesthetics:

Interconnected water bodies create a network of scenic landscapes, providing opportunities for recreational activities such as boating, fishing, and nature tourism. This can enhance the aesthetic appeal of the region.

Community Livelihoods:

Sustainable management of interconnected water bodies can support local livelihoods, including fisheries, agriculture, and tourism. This, in turn, contributes to the economic well-being of the communities in the area.

How to Achieve Interlinking:

Hydrological Studies:

Conduct detailed hydrological studies to understand the water flow patterns, seasonal variations, and groundwater interactions among the identified water bodies.

Engineering Solutions:

Develop engineering solutions such as canals, channels, and embankments to physically connect the water bodies. This may involve creating new linkages or restoring natural connections that may have been disrupted.

Stakeholder Engagement:

Involve local communities, environmental experts, and relevant authorities in the planning and decision-making process. Understand their needs and concerns to ensure the project aligns with the interests of all stakeholders.

Environmental Impact Assessment (EIA):

Conduct a comprehensive Environmental Impact Assessment to evaluate the potential impacts of interlinking on the ecosystems, biodiversity, and local communities. Implement necessary mitigation measures to minimize adverse effects.

Legal and Regulatory Framework:

Ensure that the interlinking project complies with existing laws and regulations. Obtain the required permits and approvals from relevant governmental bodies.

Monitoring and Maintenance:

Implement a robust monitoring system to track the impact of interlinking over time. Regular maintenance and management activities should be in place to address any issues that may arise.

Public Awareness and Education:

Raise public awareness about the importance of interlinking water bodies and the benefits it brings. Education programs can promote responsible water use and conservation.

Integrated Water Management:

Develop an integrated water management plan that considers not only interlinking but also sustainable water use practices, pollution control, and watershed management.

Interlinking water bodies requires a holistic approach, involving scientific understanding, community engagement, and careful planning to ensure long-term sustainability and benefits for the region.

23.7 CLIMATE ACTION PLAN

Climate action plan is proposed with a specific focus on achieving carbon neutrality. Carbon neutrality signifies balancing the emissions of greenhouse gases with equivalent removal from the atmosphere, resulting in a net-zero carbon footprint. The plan presents various options and strategies to enable the LPA to attain this goal, addressing mitigation, adaptation, and emissions offset measures.

The master plan recognizes the pressing need to mitigate and adapt to climate change. Climate Action Plan is to demonstrate commitment to sustainability and to set an example for urban development. This outlines the various options and measures designed to help the LPA realize its carbon neutrality target.

Carbon Neutrality Options

Carbon neutrality can be achieved through a combination of mitigation, adaptation, and emissions offset measures:

1. Mitigation Measures

Mitigation measures are central to achieving carbon neutrality. Options include:

Renewable Energy Adoption: Encourage the widespread adoption of renewable energy sources, such as solar and wind power. Invest in renewable energy infrastructure for local government operations and offer incentives to residents and businesses to do the same.

Energy Efficiency Programs: Implement comprehensive energy efficiency programs across residential, commercial, and industrial sectors. Promote energy-efficient building standards, retrofitting, and encourage the use of energy-efficient appliances.

Sustainable Transportation: Develop sustainable transportation options, including public transit, cycling infrastructure, and pedestrian-friendly streets. Promote the adoption of electric vehicles and discourage the use of fossil fuel-powered transportation.

Waste Reduction: Implement comprehensive waste reduction and recycling initiatives to reduce emissions associated with landfill waste.

2. Adaptation Measures

Adaptation strategies enhance the resilience of the LPA to climate change impacts:

Land-Use Regulations: Develop and enforce land-use regulations that consider climate change risks, such as flooding and heat stress, particularly for vulnerable areas and communities.

Infrastructure Upgrades: Upgrade infrastructure to withstand extreme weather events. This includes reinforcing buildings, bridges, and stormwater systems.

Water Management: Foster water conservation and management practices to address changing precipitation patterns and water scarcity.

3. Emissions Offset Strategies

Given the challenges in eliminating all emissions, emissions offset strategies are essential:

Afforestation and Reforestation: Invest in local afforestation and reforestation projects to capture and store carbon. These projects not only offset emissions but also enhance the local environment and biodiversity.

Carbon Capture and Storage: Explore carbon capture and storage technologies to directly remove carbon dioxide from the atmosphere.

4. Monitoring and Reporting

To ensure the success of the plan, it's essential to establish a robust system for monitoring and reporting on progress toward carbon neutrality. Regular assessments of emissions reductions and the effectiveness of carbon offset initiatives will be crucial.

5. Public Engagement

Engaging and educating the public about carbon neutrality is a pivotal element of the plan. Outreach campaigns, awareness initiatives, and community involvement will encourage individuals and businesses to participate actively in emissions reduction and offset efforts.

The climate action plan is required to actively combat climate change and achieve carbon neutrality. By integrating a mix of mitigation, adaptation, and emissions offset measures, Plan aims to not only reduce its carbon footprint but also set a model for sustainable urban development. Success in this endeavour will not only benefit the local community but also inspire municipalities worldwide to embark on a path toward carbon neutrality and a more sustainable future.

24

DISASTER MANAGEMENT PROPOSAL

24 DISASTER MANAGEMENT PROPOSAL

24.1 FLOOD MITIGATION MEASURES

The Tiruppur district receives adequate rainfall every year. However, due to deficient drains, inadequate drainage infrastructure, and the flat terrain, ready to heavy flooding. As a major part of the macro drainage package 1 project, a drainage system of 18.67 kilometre has been constructed for Flood alleviation.

Map 87 Map showing Flood inundated areas and relief centres in LPA

The implementation of a macro drainage system for the entire city, coupled with the interlinking of water bodies, stands as a crucial initiative for mitigating flooding and inundation issues in Tiruppur. A comprehensive macro drainage network would serve to efficiently channel rainwater and prevent the accumulation of excess water in vulnerable areas. By interlinking water bodies, the city can create a more resilient and interconnected system, allowing for better water management during periods of heavy rainfall.

The macro drainage system, when strategically planned and executed, can enhance the overall flood resilience of Tiruppur. It would involve the construction of large-scale drainage channels and conduits designed to efficiently carry stormwater away from urban areas, thereby reducing the risk of flooding. Additionally, the interlinking of water bodies can create a network that disperses excess water across multiple outlets, minimizing the impact on any one particular area.

This holistic approach to water management aligns with modern urban planning strategies that emphasize sustainable and resilient infrastructure. Furthermore, such initiatives not only contribute to flood prevention but also promote environmental conservation by harnessing natural water systems. As Tiruppur continues to grow and urbanize, investing in macro drainage and waterbody interlinking becomes integral to ensuring the safety, sustainability, and well-being of the city and its residents. Engaging stakeholders, urban planners, and environmental experts will be essential in designing and implementing an effective and sustainable solution for Tiruppur's drainage and flood mitigation challenges.

25

CONTINUOUS BUILDING AREA

25 CONTINUOUS BUILDING AREAS

Buildings without side set back are permissible in a plot or site in continuous building areas set apart in the approved Master Plan or Detailed Development Plan or in the other areas as may be declared by the local body as CBA with the approval of the Directorate of Town and Country Planning or Government as the case may be from time to time. However, in an approved layout area only in the plots classified for Continuous type of buildings it is permissible.

Incorporation of CBA in Master Plan - CBA locations are identified and resolution from the local body is finalized.

- CBA Area – 4.44 sq.km
- 2.78 % in Corporation is identified as CBA

ந.க.எண். இ3/4763/2023

திருப்பூர் மாநகராட்சி
மாமன்ற கூட்டத்தாள்

பொருள்:

அரசாணை எண்.188 வீட்டு வசதி மற்றும் நகர்புற வளர்ச்சிதுறை நாள்:12.07.2012, அரசாணை எண்.306 வீட்டு வசதி மற்றும் நகர்புற வளர்ச்சிதுறை நாள்:31.12.2013 & அரசாணை எண்.18 நகராட்சி நிர்வாகம் மற்றும் குடிநீர் வழங்கல்துறை நாள்:04.02.2019 மேற்காணும் அரசாணைகளின்படி திருப்பூர் மாநகராட்சி, 2 நகராட்சிகள், 3 பேரூராட்சிகள் மற்றும் 53 ஊராட்சிகளை உள்ளடக்கிய 1031 ச.கிமீ பரப்பளவிற்கு திருப்பூர் உள்ளூர் திட்டக்குழுமப்பகுதி உத்தேசிக்கப்பட்டு, திருப்பூர் முழுமைத்திட்டம் (GIS Software) தயாரிக்கும் பணிகள் மேற்கொள்ளப்பட்டு பணிகள் நிறைவடையும் நிலையில் உள்ளது.

மேற்படி முழுமைத்திட்ட பகுதிகளில் அமையும் Continuous Building Areas (CBA) பகுதியினை அரசாணை விதி எண்.30(1)-ன்படி முழுமைத்திட்டத்தின் கீழ் அறிவிப்பு செய்யும் பொருட்டு மாநகராட்சிக்கு உட்பட்ட பகுதிகளை மாநகராட்சி பொறியாளர்கள் திரு.ஹரி, திரு.சிவகுமார் திரு.ஆறுமுகம் மற்றும் திரு.கோவிந்தபிரபாகர் ஆகிய 4 பொறியாளர்களுடன் இணைந்து கூட்டாய்வு மேற்கொள்ளப்பட்டதில், கண்டறியப்பட்ட பகுதிகளின் பட்டியல் கீழ்கண்டவாறு இத்துடன் இணைக்கப்பட்டுள்ளது.

மாமன்றத்தின் அனுமதியை எதிர்நோக்கி மாமன்ற பொருள் வைக்கப்படுகிறது.

அலுவலக குறிப்பு:

இணைக்கப்பட்டுள்ள பட்டியலில் கண்டுள்ள விவரங்களை மாமன்றம் பார்வையிட்டு அனுமதிக்கலாம்.

பார்வையிடப்பட்டது

11/8/23

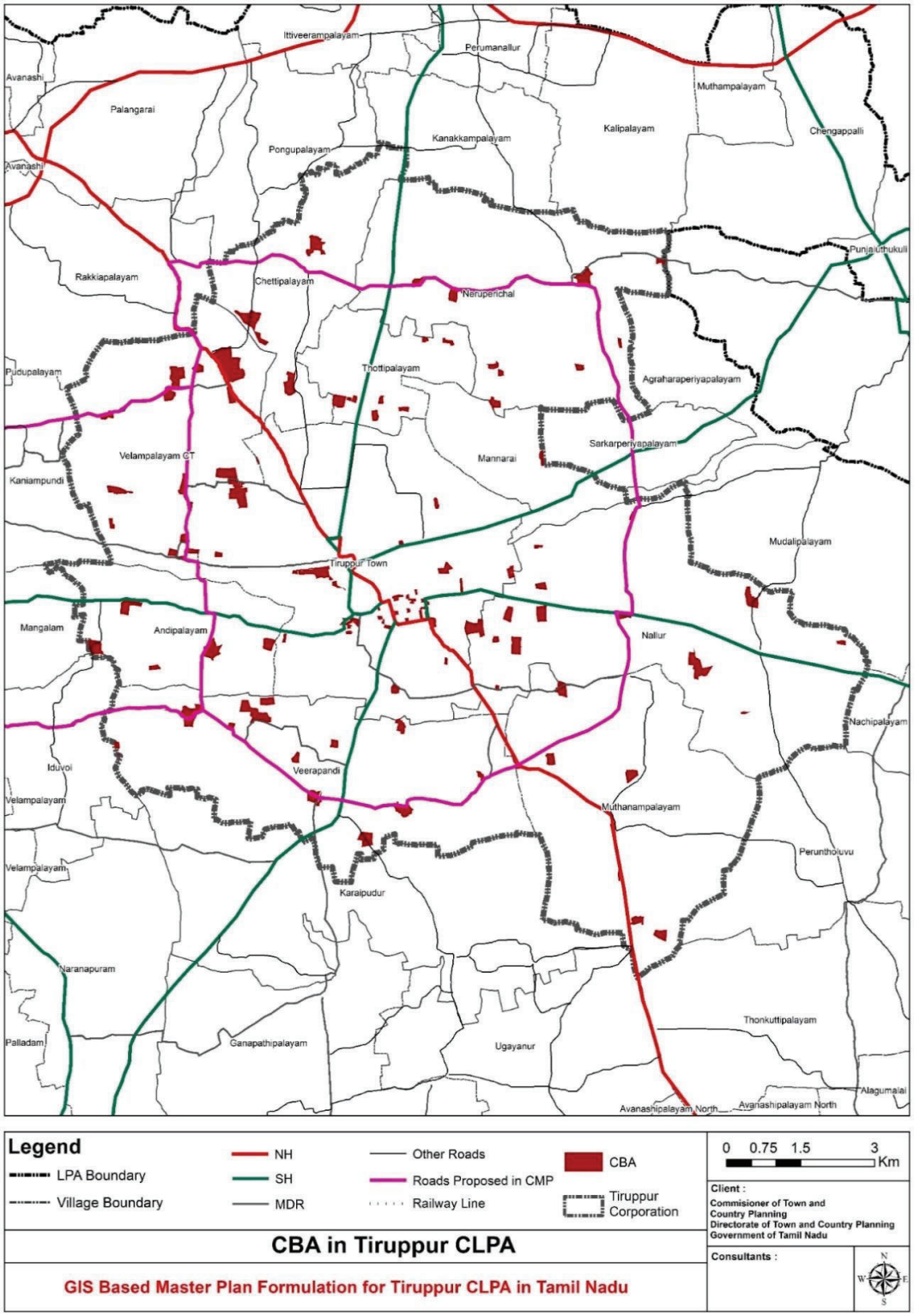
ஆணையாளர்,
திருப்பூர் மாநகராட்சி.

11/8/23

11/8/23

மேயர்
திருப்பூர் மாநகராட்சி

Figure 53 Continuous Building Area G.O.



Map 88 Continuous Building Area, Tiruppur LPA

26

PROPOSED LANDUSE

26 PROPOSED LANDUSE

Land suitability analysis is a prerequisite to achieving optimum utilisation of available land resources for defined use. Land suitability analysis is more than just a Geographical Information System (GIS) based procedure; it also can be used to locate the most suitable location for a project (Birch 2009). According to a study conducted by Joerin et al. (2001), land suitability analysis is one of the significant contributions of ArcGIS. The ArcGIS program is useful for analysing the scope desired to determine the suitability of land.

Process of Land Suitability is the evaluation and grouping of specific areas of land in terms of their suitability for a defined use.

Objective of the Land Evaluation is the prediction of the inherent capacity of a land unit to support a specific land use for a long period of time without deterioration, to minimize the socio-economic and environmental cost.

26.1 LAND SUITABILITY ANALYSIS

Land Suitability Analysis for Tiruppur CLPA is carried out, rank for the factors is arrived based on AHP method. List of all the Land Suitability factors and their attributes and values are as follows:

Table 116 Land suitability criteria

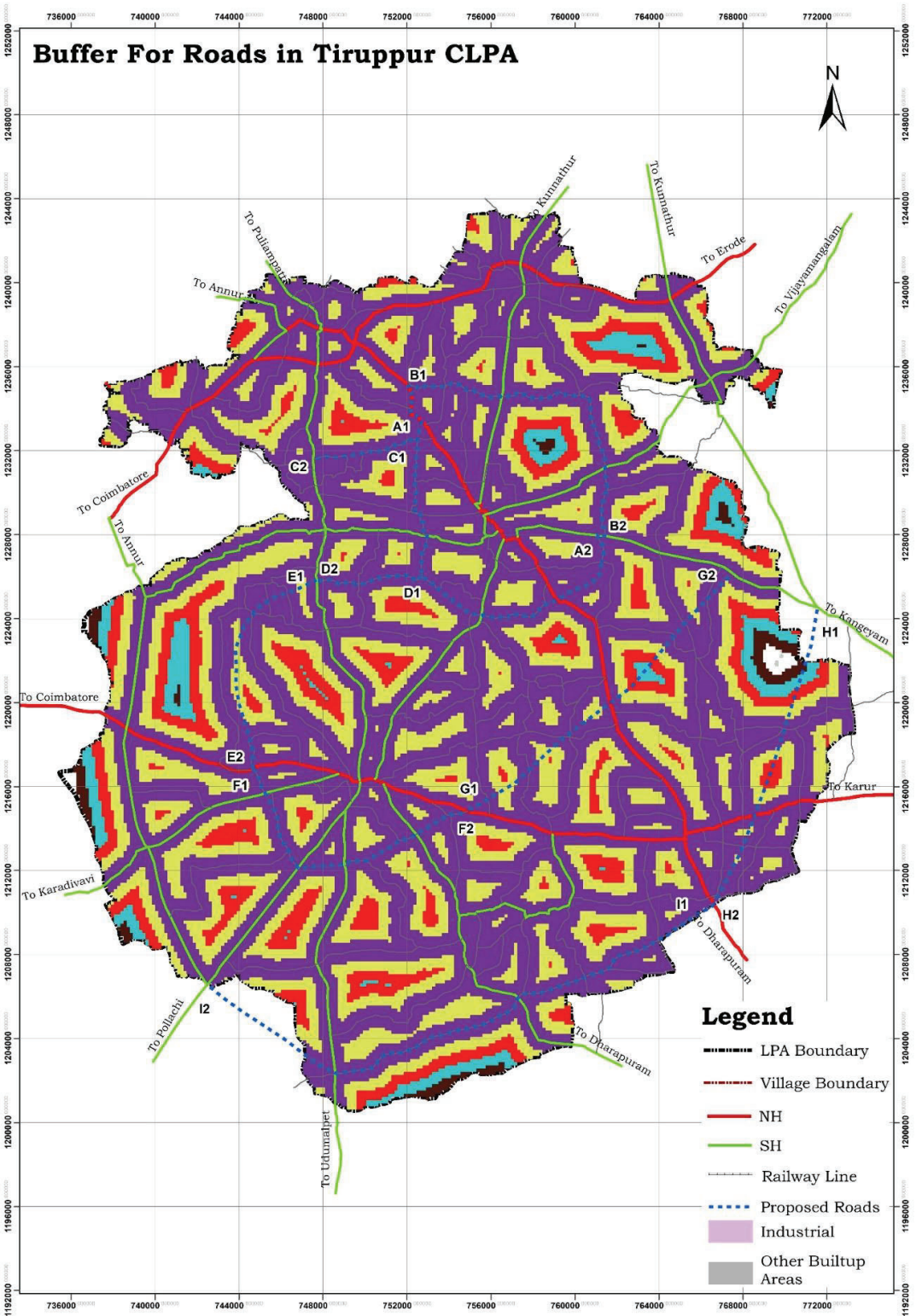
LAND SUITABILITY CRITERIA	ATTRIBUTES	VALUES
Land Use Classification	Developed	Restricted
	Agriculture Land	3
	Water body	Restricted
	Vacant Land	5
Major Road (in m)	0-200	5
	200-400	4
	400-600	3
	600-800	2
	800-1000	1
Other Roads (in m)	0-200	5
	200-400	4
	400-600	3

LAND SUITABILITY CRITERIA	ATTRIBUTES	VALUES
Proximity to Railway station (in m)	0-500	5
	500-1000	4
	1000-1500	3
	1500-2000	2
	2000-2500	1
	2500-3000	1
Distance from Water Body	0 - 100 m	Restricted
	100 m - 200 m	1
	200 m - 300 m	2
	300 m - 400 m	3
	400 m - 500 m	4
	More than 500 m	5

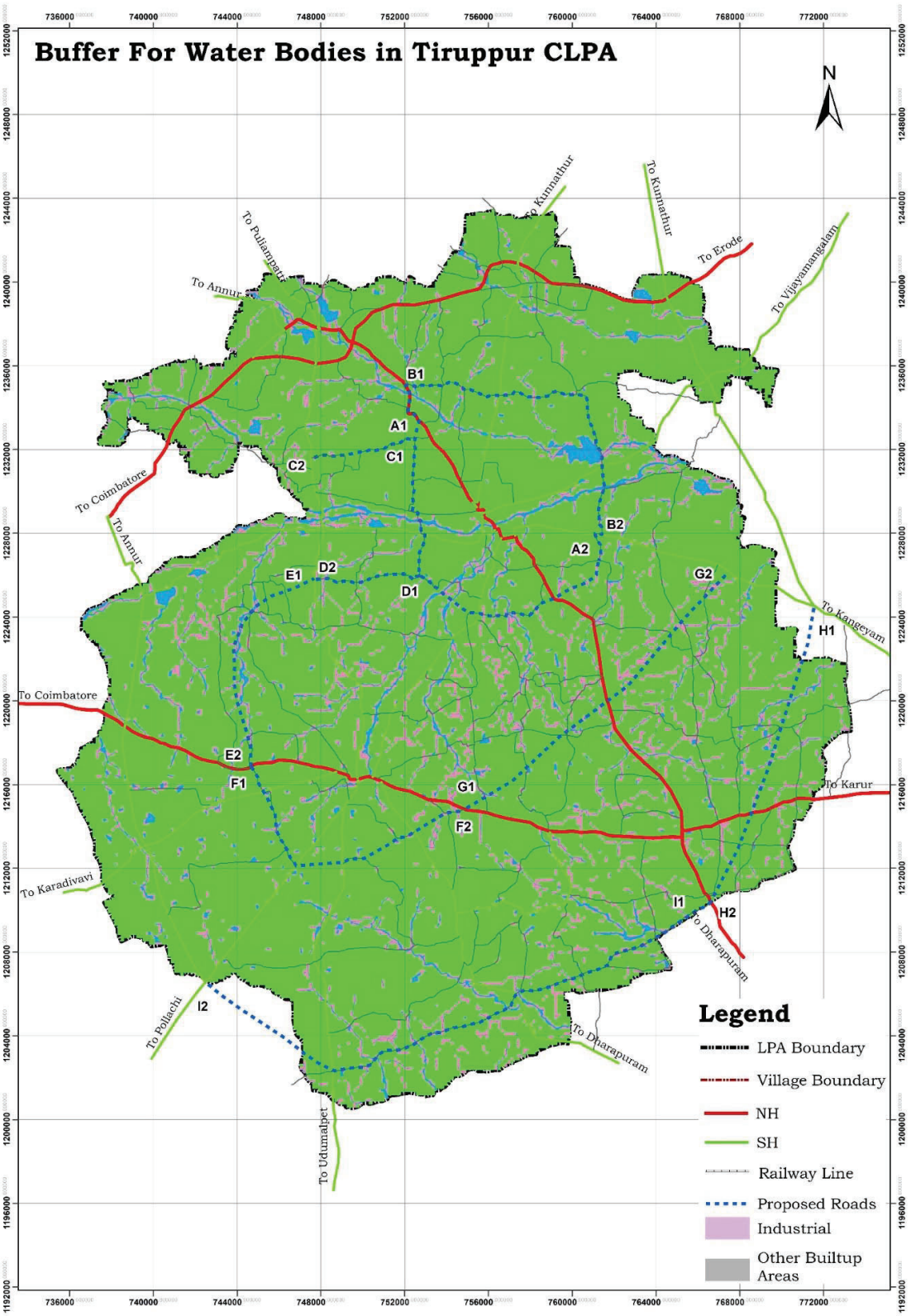
Table 117 Land suitability criteria

LAND SUITABILITY CRITERIA	ATTRIBUTES	VALUES
Slope (in degrees)	Gentle (0–1)	5
	Moderate (1–3)	5
	Stiff (3–6) 8	4
	Steep (6–12)	3
	Very steep (More than 12)	2
Distance to Schools (in m)	0 Km - 0.25 Km	5
	0.25Km - 0.50 Km	4
	0.50Km - 1.00 Km	3
	1.00Km - 2.00 Km	2
	2.00Km - 5.00 Km	1
	More than 5.00 Km	0
Distance to Hospitals (in m)	0 Km - 1.0 Km	5
	1.0Km - 2.0 Km	4
	2.0Km - 3.0 Km	3

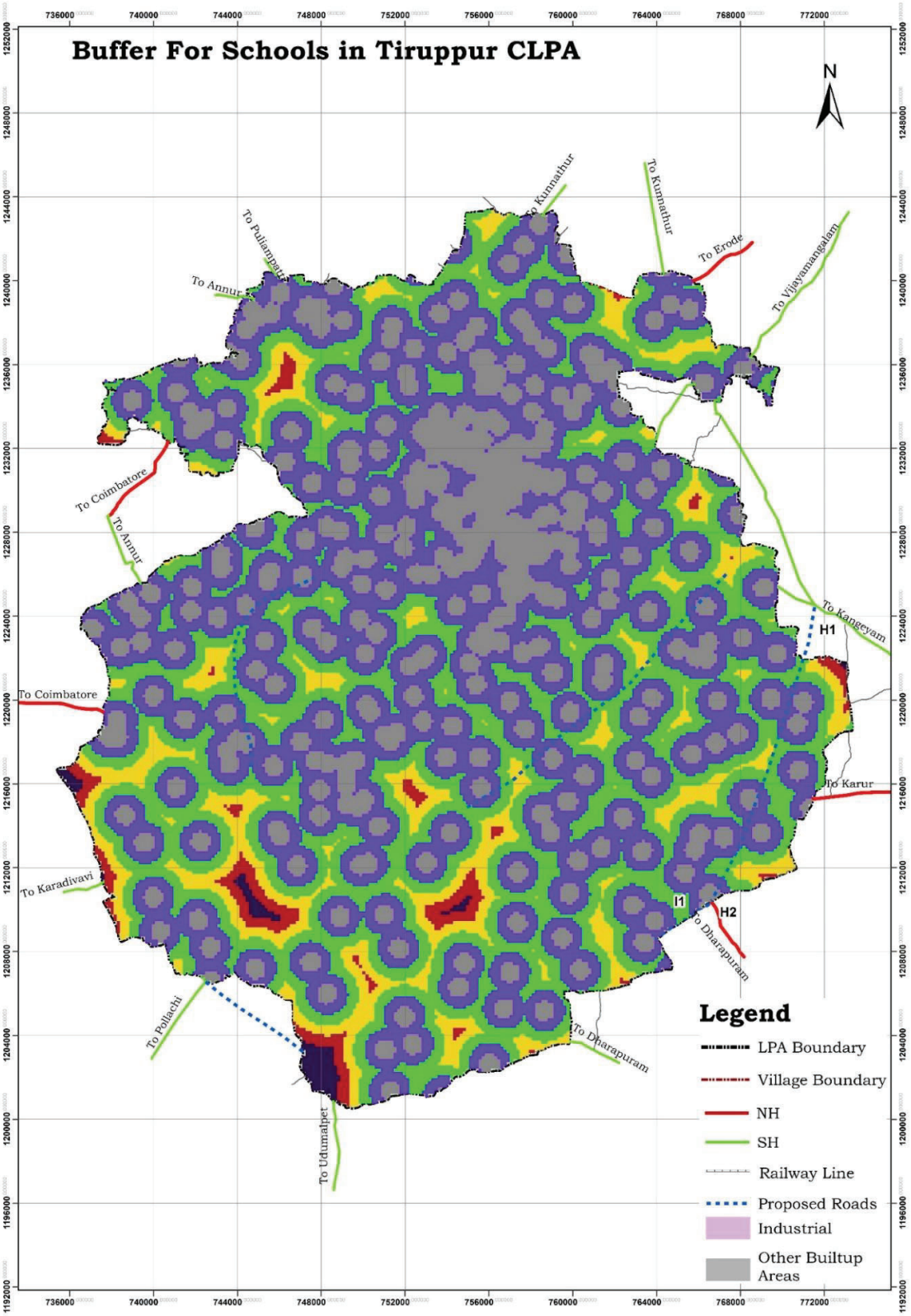
LAND SUITABILITY CRITERIA	ATTRIBUTES	VALUES
	3.0Km - 4.0 Km	2
	4.0Km - 5.0 Km	1
	More than5.0 Km	0



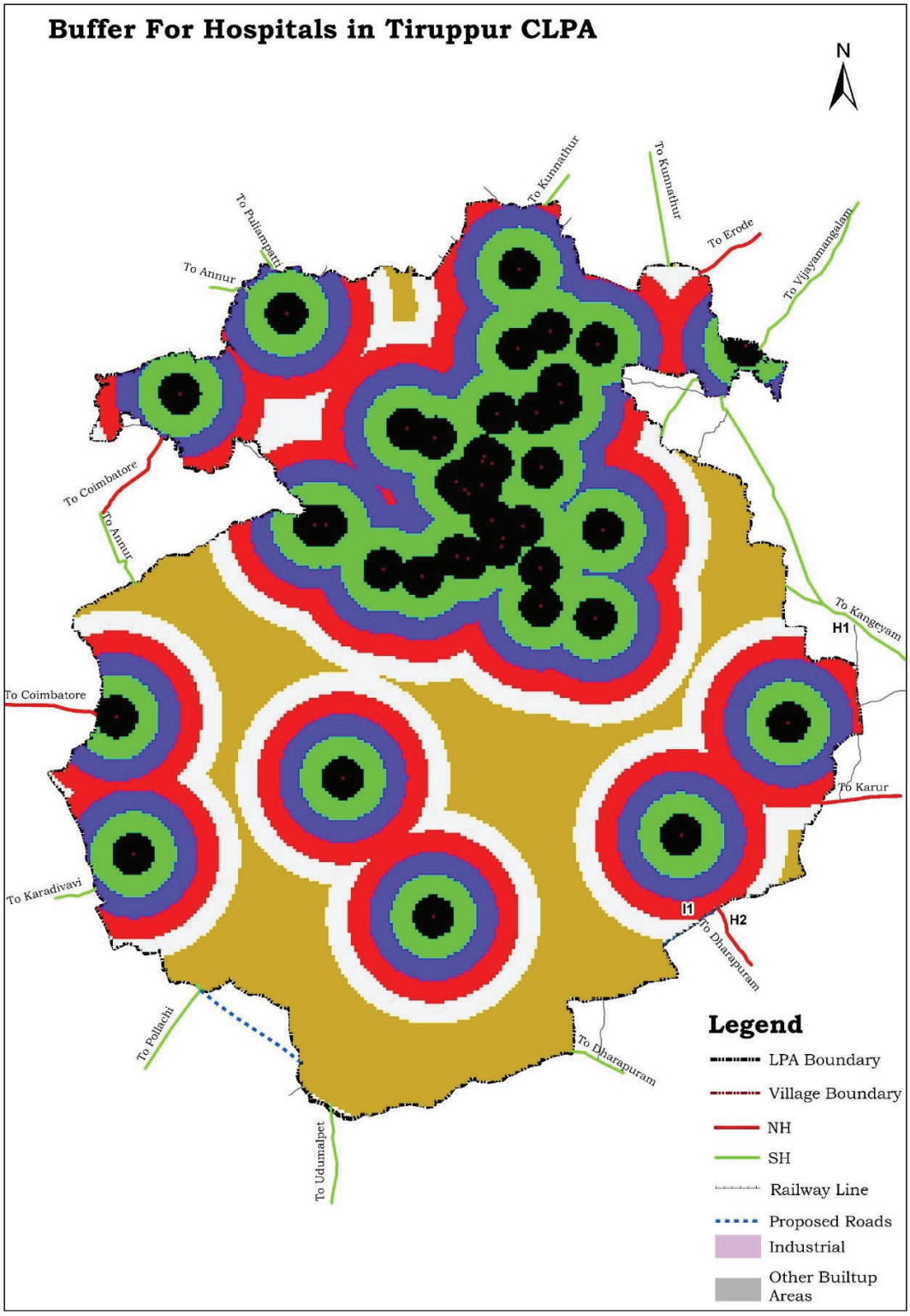
Map 89 Buffer for roads, Tiruppur LPA



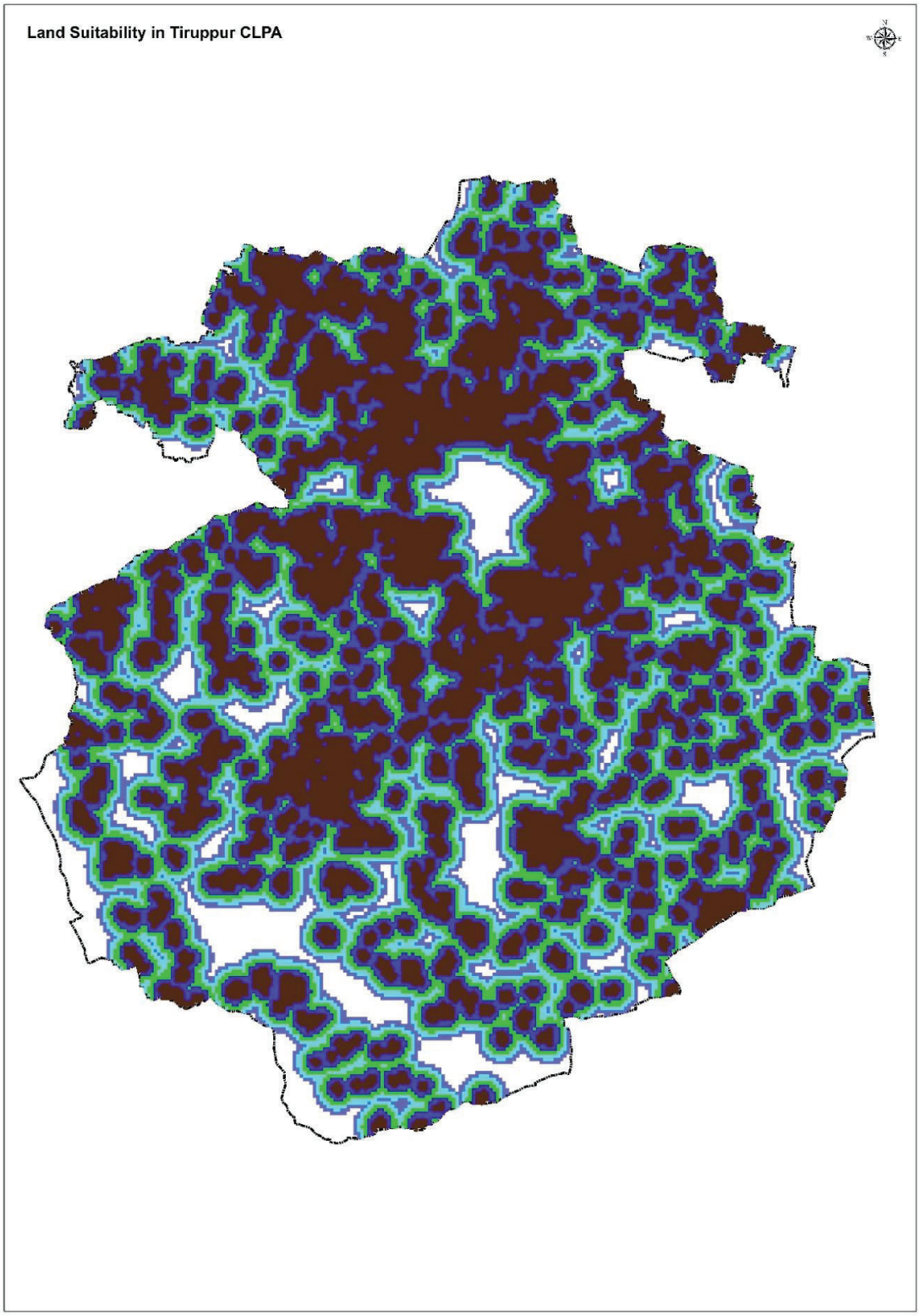
Map 90 Buffer for waterbodies, Tiruppur LPA



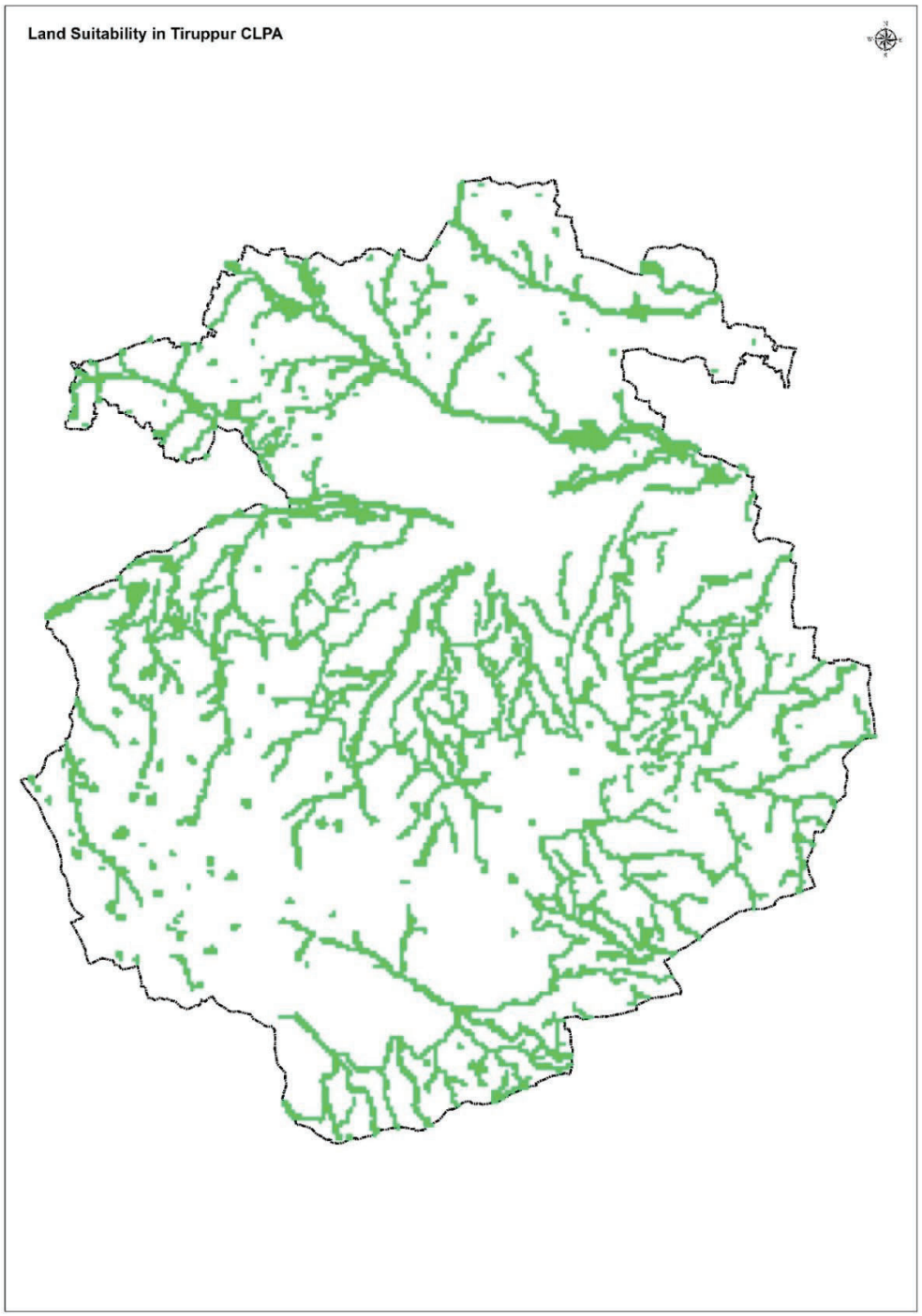
Map 91 Buffer for schools, Tiruppur LPA



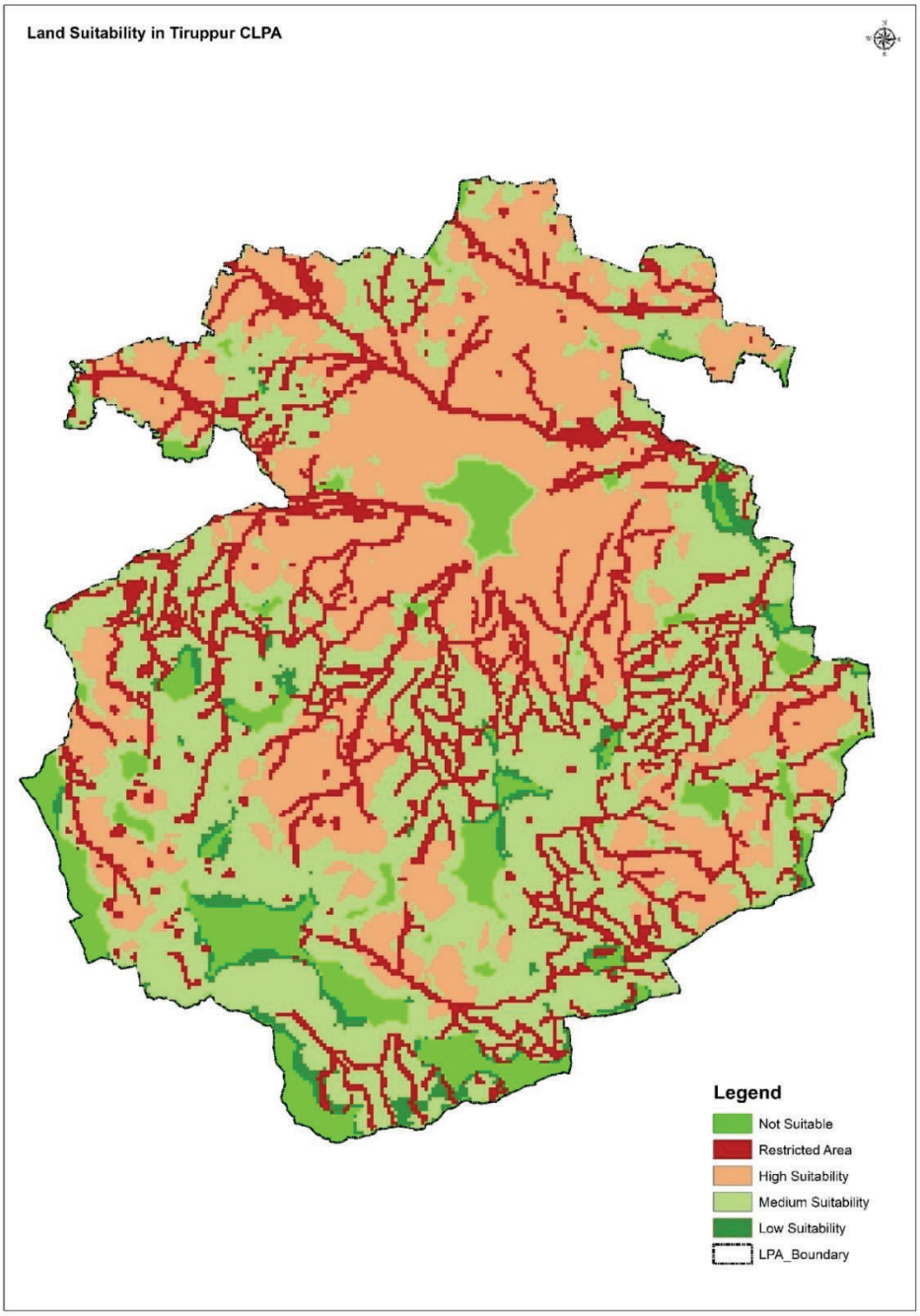
Map 92 Buffer for Hospitals, Tiruppur LPA



Map 93 Land suitability, Tiruppur LPA



Map 94 Land suitability, Tiruppur LPA

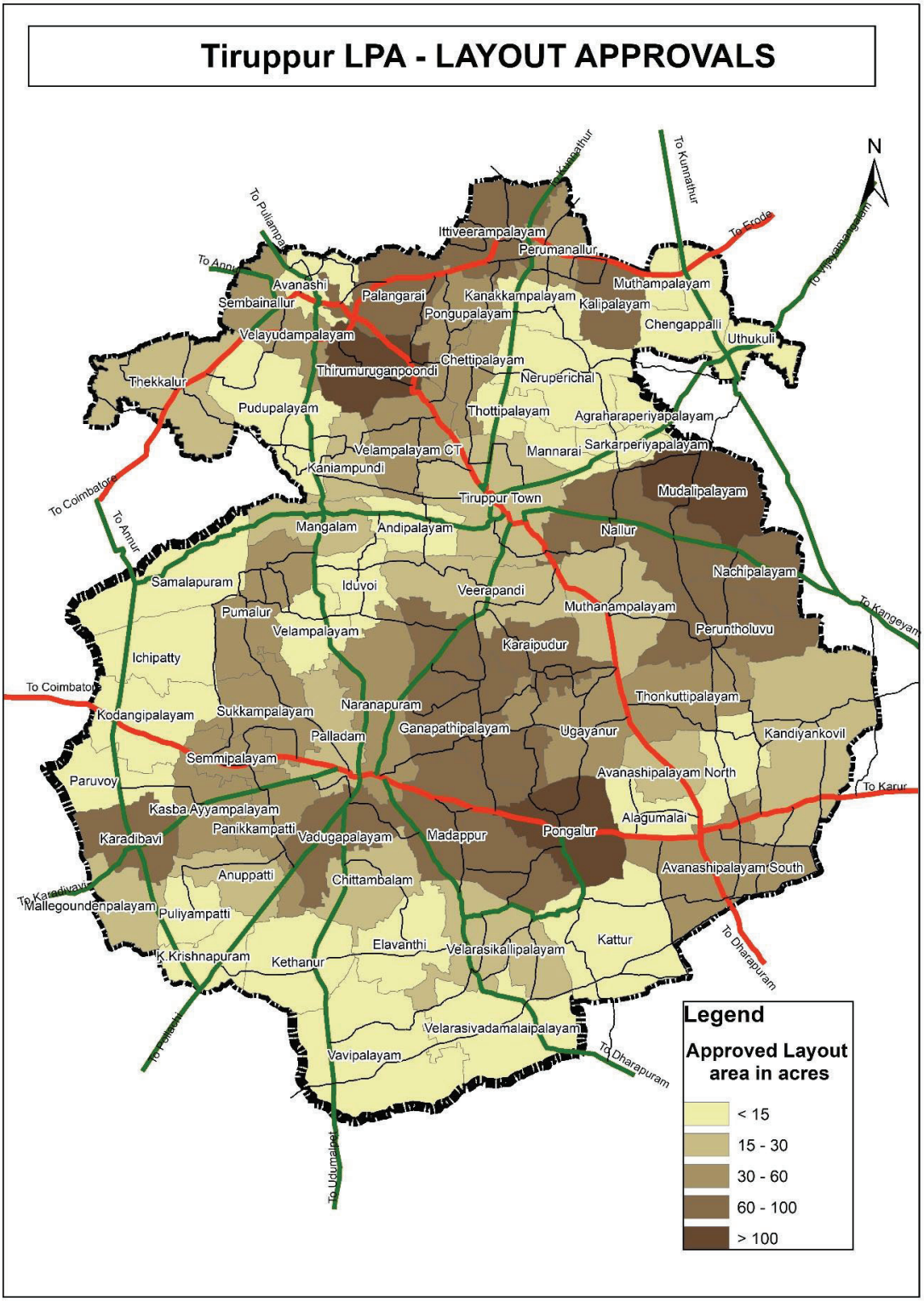


Map 95 Land suitability, Tiruppur LPA

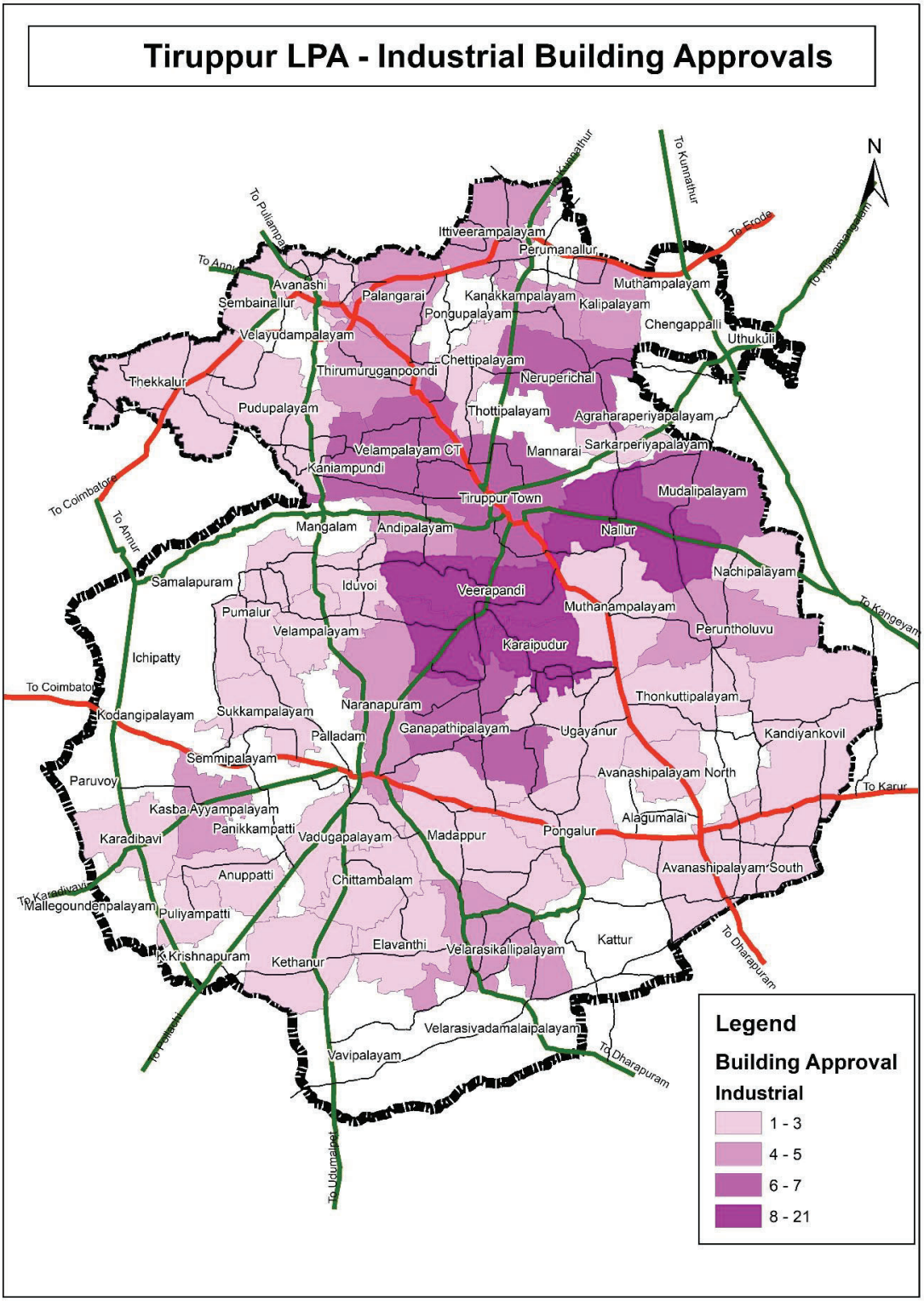
26.2 TREND OF LAYOUT AND BUILDING APPROVAL IN TIRUPPUR LPA

- In Tiruppur LPA, Layouts are majorly approved around Tiruppur Corporation towards Avanashi, Palladam and Kangeyam.

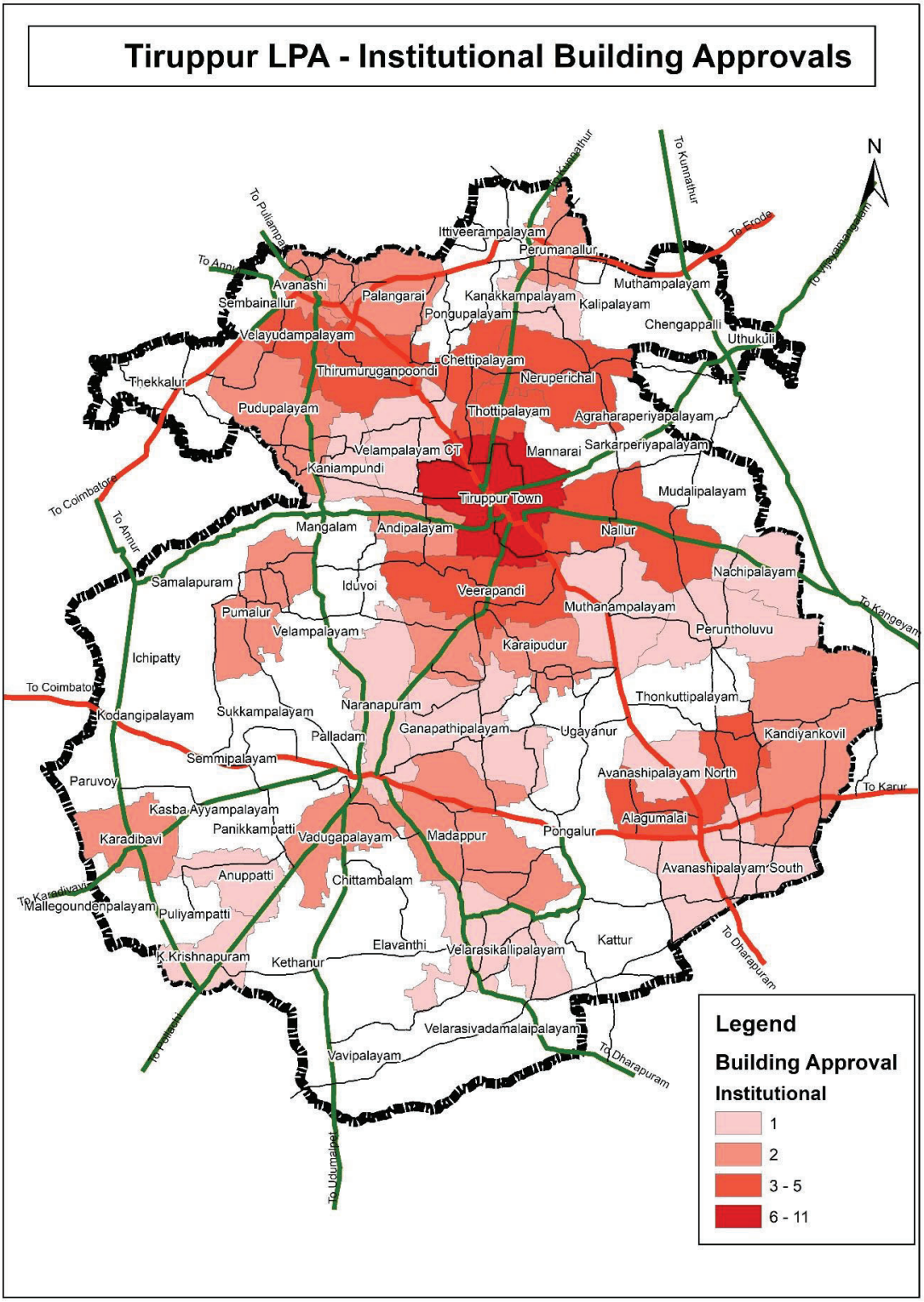
- Developments south of NH 81 is minimum



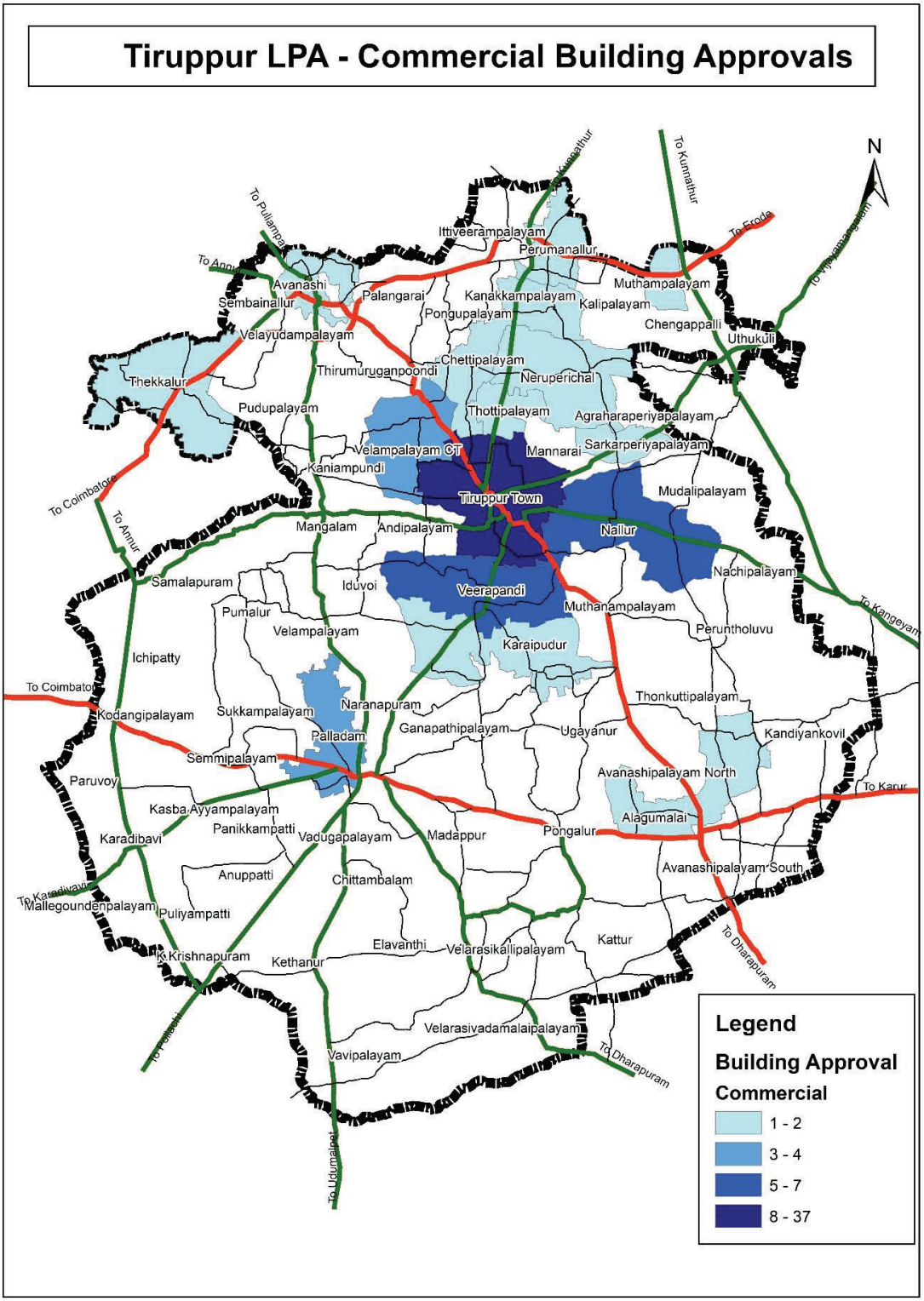
Map 96 Map Showing Layout Approval Trend in Tiruppur LPA



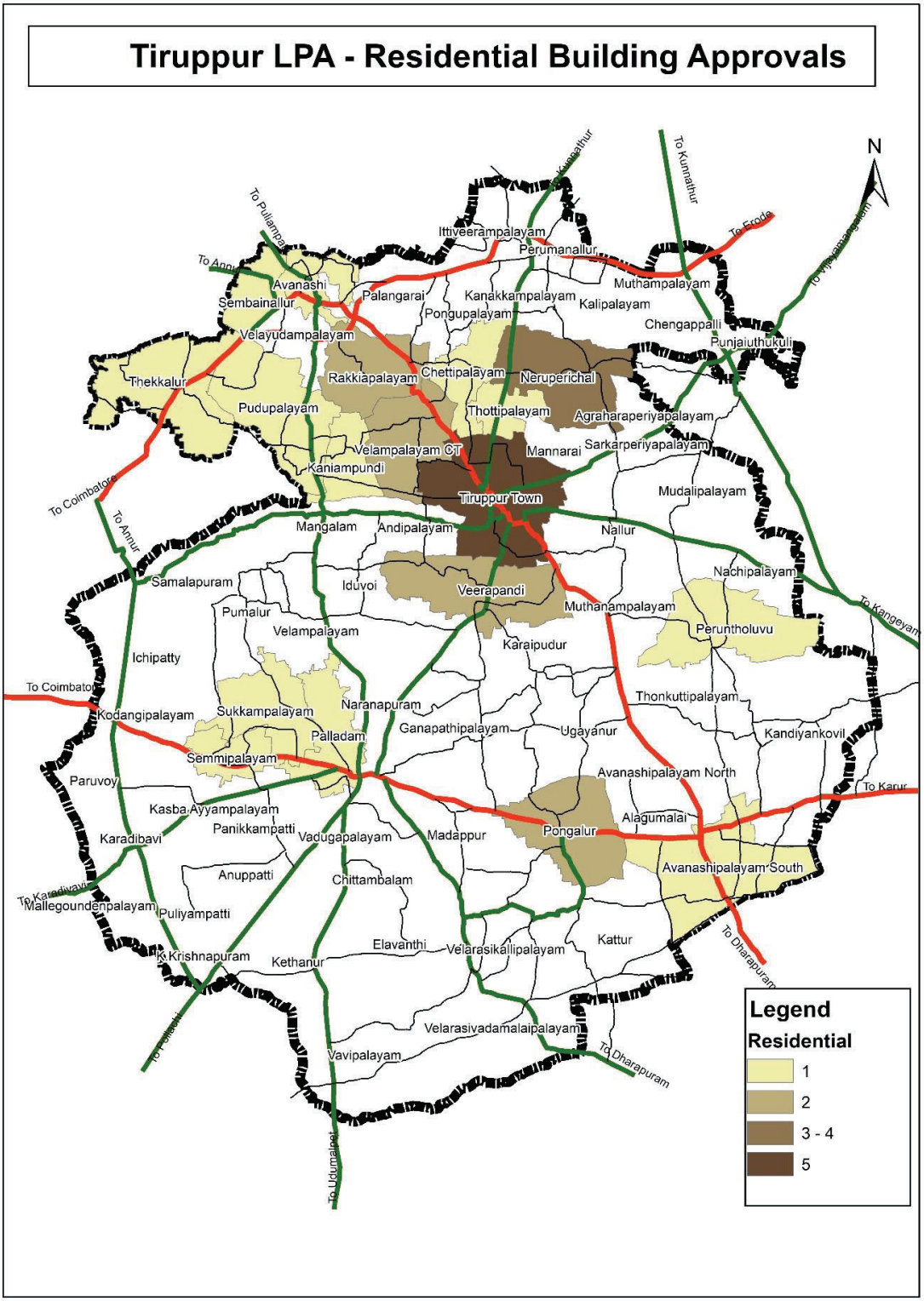
Map 97 Map Showing Industrial Buildings Approval Trend in Tiruppur LPA



Map 98 Map Showing Institutional Buildings Approval Trend in LPA

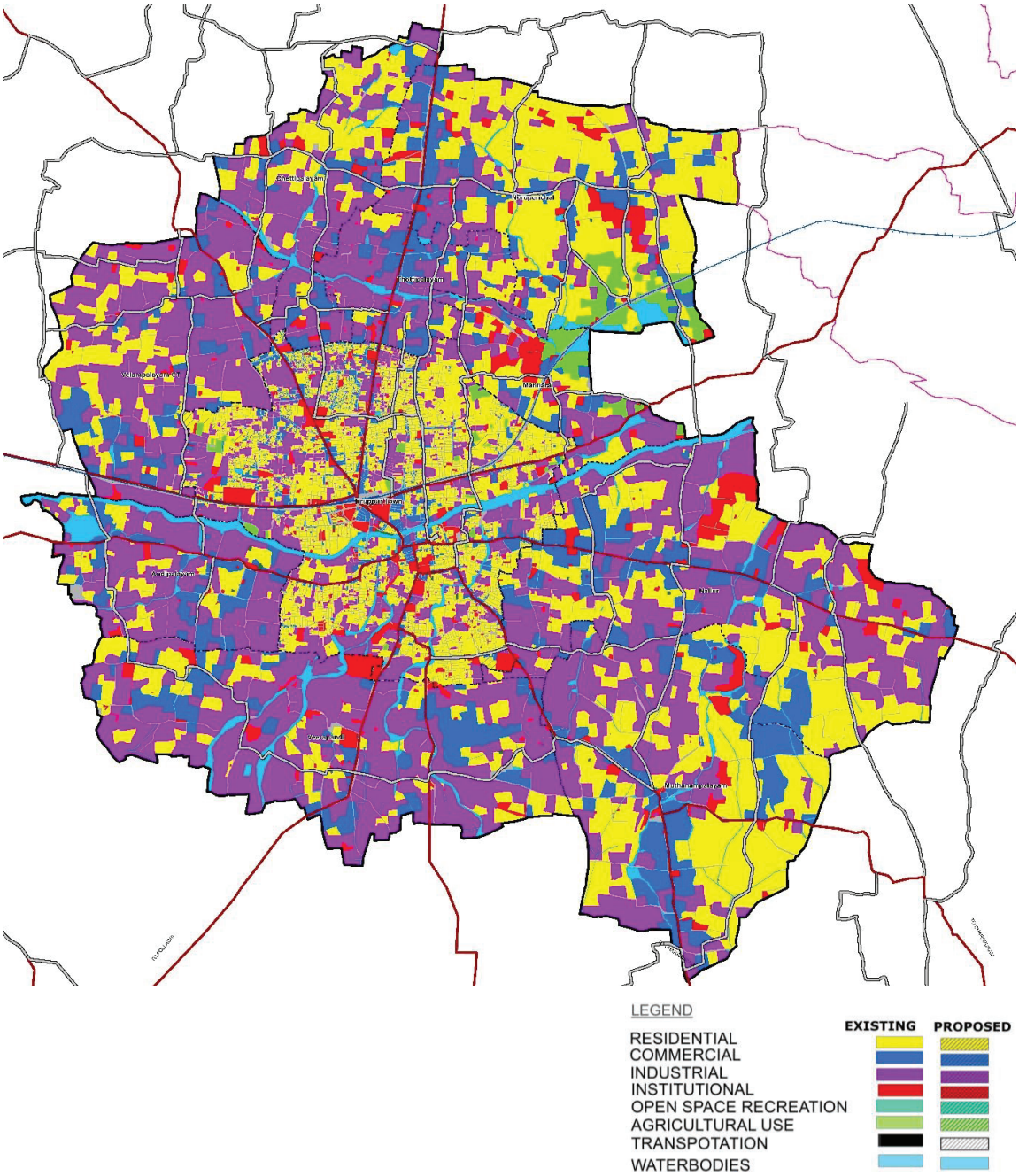


Map 99 Map Showing Commercial Buildings Approval Trend in LPA



Map 100 Map Showing Residential Buildings Approval Trend in Tiruppur LPA

26.3 PROPOSED LAND USE FOR CORPORATION



Map 101 Proposed Land Use Map of Tiruppur Corporation

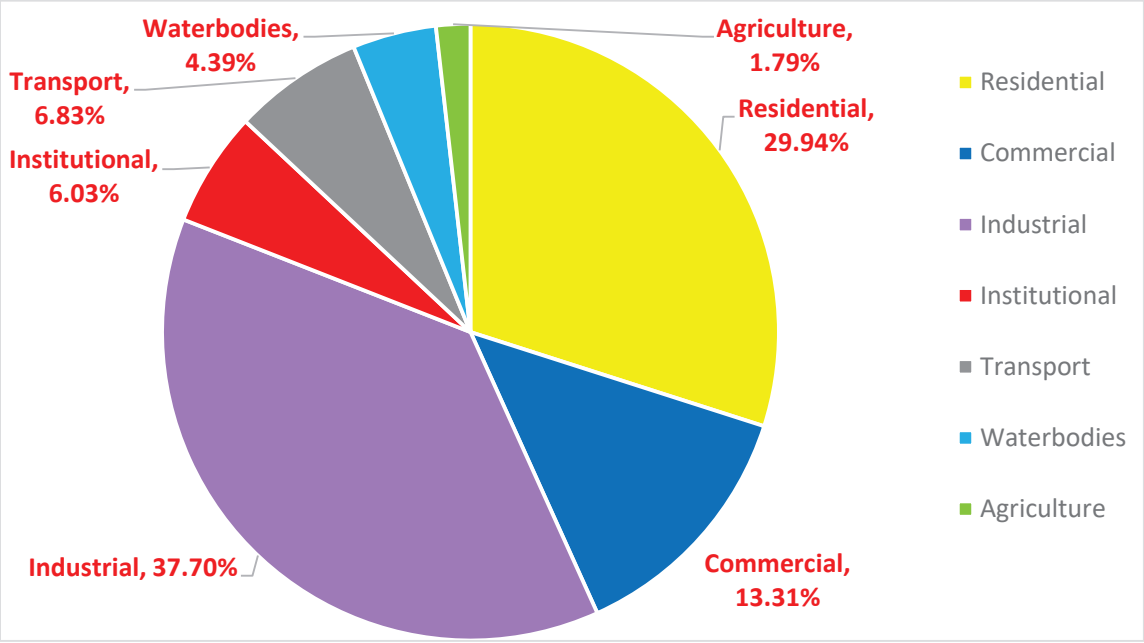


Figure 54 Proposed landuse, Tiruppur Corporation

Table 118 Proposed landuse, Tiruppur Corporation

LANDUSE	EXISTING LANDUSE AREA IN 2021	PERCENTAGE OF LANDUSE IN 2021	PROPOSED LANDUSE AREA IN 2041	PERCENTAGE OF LANDUSE IN 2041	INDUSTRIAL TOWN STDS AS PER URDPFI
Residential	39.85	25.01%	47.70	29.94%	20-25
Commercial	17.78	11.16%	21.21	13.31%	3-4 %
Industrial	55.30	34.71%	60.06	37.70%	30-35%
Institutional	5.98	3.75%	9.61	6.03%	6-8%
Transport	10.03	6.29%	10.89	6.83%	10-12%
Waterbodies	7.00	4.39%	7.00	4.39%	BALANCE
Agriculture	23.32	14.64%	2.86	1.79%	
Total	159.32		159.32		

The land use distribution for 2021 and proposed land use for 2041, along with the corresponding percentages and industrial town standards as per URDPFI, is as follows: Residential areas cover 39.85 sq.km, constituting 25.01% of the total area in 2021, and are proposed to increase to 47.70 sq.km, representing 29.94% in 2041. The recommended industrial town standards fall within the range of 20-25%. Commercial zones occupy 17.78 sq.km, making up 11.16% of the total area in 2021, with a proposed increase to 21.21 sq.km, comprising 13.31% in 2041. The industrial town standards suggest a range of 3-4%. Industrial land use covers 55.30 sq.km, accounting for 34.71% in 2021, and is projected to increase to 60.06 sq.km, representing 37.70% in 2041. The recommended industrial town standards fall within the range of 30-35%. Institutional areas cover 5.98 sq.km, constituting 3.75% of the total area in 2021, and are proposed to increase to 9.61 sq.km, comprising 6.03% in 2041. The recommended industrial town standards suggest a range of 6-8%.

Transport-related land use occupies 10.03 sq.km, making up 6.29% of the total area in 2021, and is projected to increase to 10.89 sq.km, representing 6.83% in 2041. The recommended industrial town standards fall within the range of 10-12%. Waterbodies cover 7.00 sq.km, accounting for 4.39% of the total area in both 2021 and 2041. The industrial town standards recommend maintaining a balance in waterbodies. Agricultural land covers 23.32 sq.km, constituting 14.64% of the total area in 2021, and is proposed to decrease to 2.86 sq.km, comprising 1.79% in 2041. The total land use in 2021 is 159.32 sq.km, and the proposed land use for 2041 is also 159.32 sq.km.

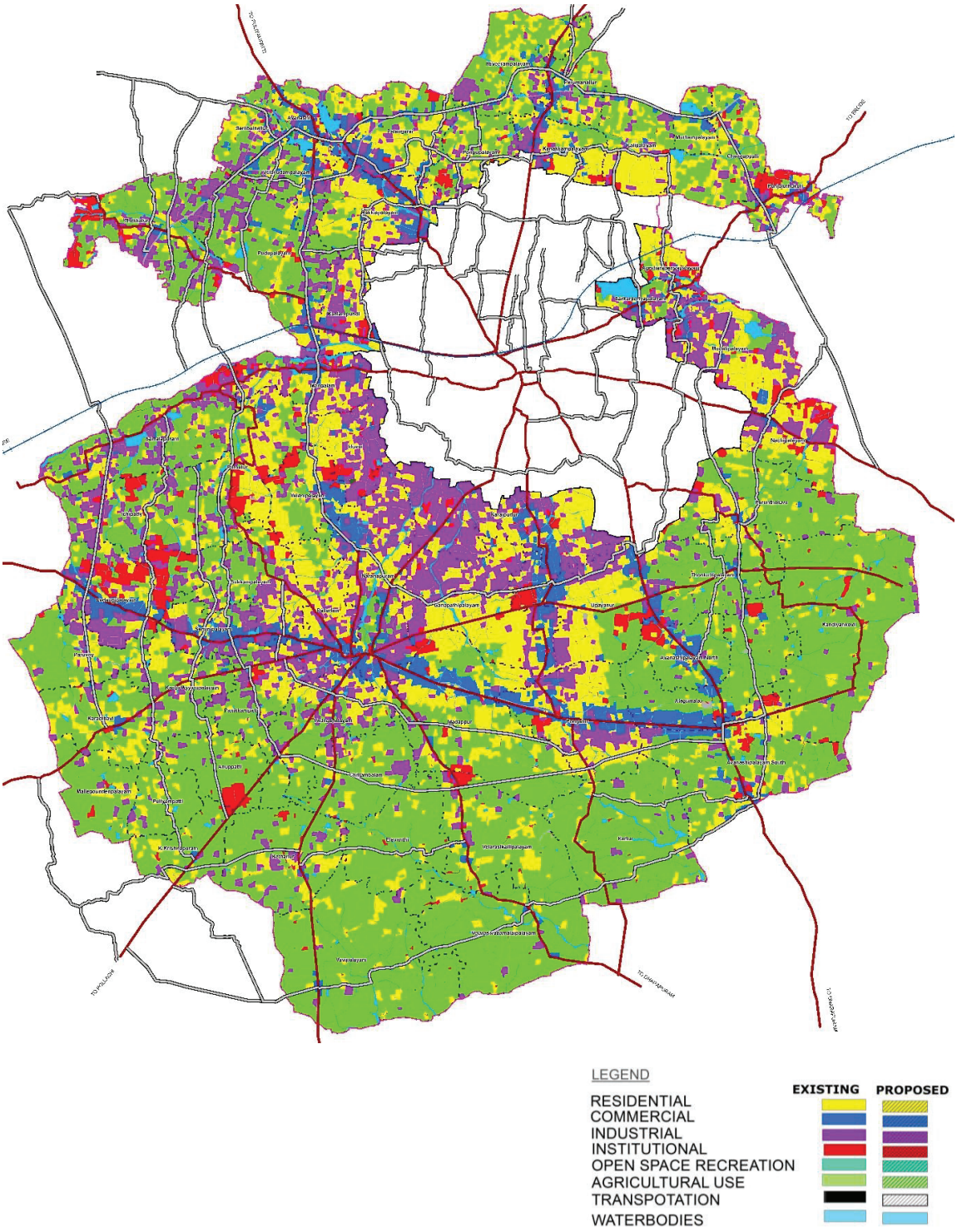
26.4 PROPOSED LAND USE FOR REST OF LPA

Residential, commercial, and industrial sectors requires substantial land for projected population, reflecting urban development and economic expansion. The proposed institutional area signifies a focus on educational and healthcare facilities. Despite a marginal increase in open spaces, the projected expansion of transport infrastructure suggests an evolving urban landscape. The stability in the area of natural water bodies and a reduction in

agricultural land underscore the intricate balance between development and environmental considerations.

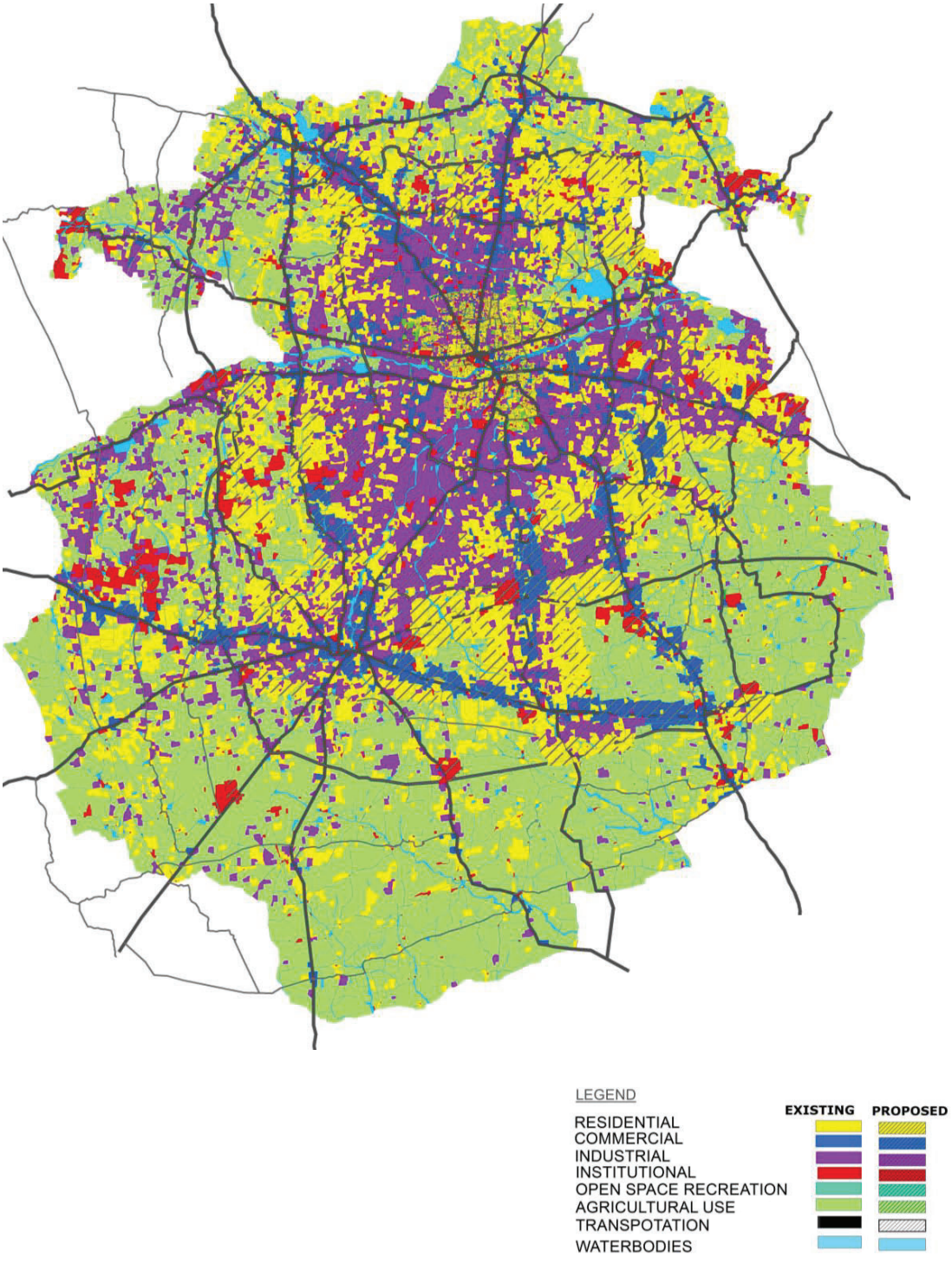
Table 119 Landuse Comparision of Rest of LPA

Landuse	**Existing Landuse area in 2021 in sq.km**	**Percentage of Landuse in 2021**	**Proposed Landuse area in 2041in sq.km**	**Percentage of Landuse in 2041**	**Change in Landuse in sq.km**
Residential	168.41	**19.31%**	219.95	**25.22%**	51.54
Commercial	20.62	**2.36%**	48.71	**5.58%**	28.09
Industrial	96.22	**11.03%**	123.81	**14.20%**	27.59
Institutional	22.11	**2.54%**	32.82	**3.76%**	10.71
Open Space and Recreation	0.00	**0.00%**	0.06	**0.01%**	0.06
Transport	33.15	**3.80%**	57.16	**6.55%**	24.01
Waterbodies	29.51	**3.38%**	29.51	**3.38%**	0.00
Agriculture	502.14	**57.57%**	360.07	**41.28%**	-142.07
Total	**872.34**	**100.00%**	**872.34**	**100.00%**	



Map 102 Proposed Land Use Map of Rest of LPA

26.5 PROPOSED LAND USE FOR LPA



Map 103 Proposed Land Use Map of Tiruppur LPA

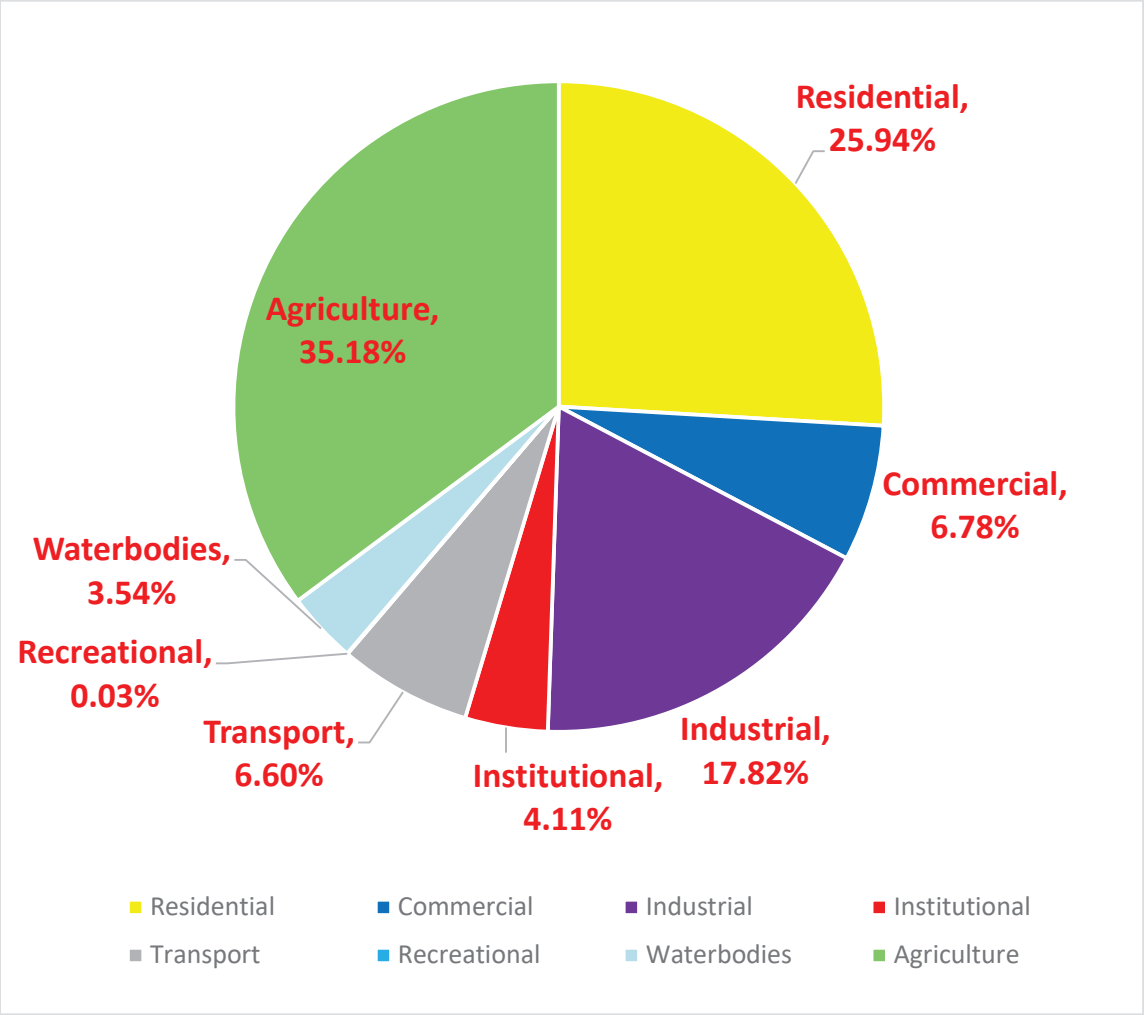


Figure 55 Proposed landuse, Tiruppur LPA

The land use in Tiruppur Local Planning Authority (LPA) is undergoing significant changes as the region continues to evolve and grow. A comparison between the existing land use in 2021 and the projected land use in 2041 provides insights into the shifting dynamics of urbanization, industrialization, and urban planning.

Table 120 Landuse Comparision of Tiruppur LPA

Landuse	**Existing Landuse area in 2021 in sq.km**	**Percentage of Landuse in 2021**	**Proposed Landuse area in 2041in sq.km**	**Percentage of Landuse in 2041**	**Change in Landuse in sq.km**
Residential	208.26	**20.19%**	267.65	**25.94%**	59.39
Commercial	38.4	**3.72%**	69.92	**6.78%**	31.52
Industrial	151.52	**14.69%**	183.87	**17.82%**	32.35
Institutional	28.09	**2.72%**	42.43	**4.11%**	14.34
Open Space and Recreation	0.24	**0.02%**	0.3	**0.03%**	0.06
Transport	43.18	**4.19%**	68.05	**6.60%**	24.87
Waterbodies	36.51	**3.54%**	36.51	**3.54%**	0
Agriculture	525.46	**50.93%**	362.93	**35.18%**	-162.53
Total	**1031.66**	**100.00%**	**1031.66**	**100.00%**	

The land use distribution for 2021 and proposed land use for 2041, along with the corresponding percentages and industrial town standards as per URDPFI, is as follows:

Residential areas cover 39.85 sq.km, constituting 25.01% of the total area in 2021, and are proposed to increase to 47.70 sq.km, representing 29.94% in 2041. The recommended industrial town standards fall within the range of 20-25%. Land requirement for residential gap is found out to be 109.75 sq.km and when FSI is taken into consideration, the demand for residential area is 55 sq.km. Residential lansuse is given primarily along Palladam and Avinashi direction and along Pongalur and Mudalipalayam where the layout approvals are high.

Commercial zones occupy 17.78 sq.km, making up 11.16% of the total area in 2021, with a proposed increase to 21.21 sq.km, comprising 13.31% in 2041. The industrial town standards suggest a range of 3-4%. Commercial developments are predominantly along Palladam-TIruppur Road, Tiruppur Dharapuram road, Coimbatore Trichy Road as the commercial buildings approval are high along the major roads.

Industrial land use covers 55.30 sq.km, accounting for 34.71% in 2021, and is projected to increase to 60.06 sq.km, representing 37.70% in 2041. The recommended industrial town standards fall within the range of 30-35%. Industrial use of 32.35 sq.km is included for the projected population and they are provided in high industrial influence roads like proposed ring road which helps in ease of goods movement.

Institutional areas cover 5.98 sq.km, constituting 3.75% of the total area in 2021, and are proposed to increase to 9.61 sq.km, comprising 6.03% in 2041. The recommended industrial town standards suggest a range of 6-8%. Institutional landuse is proposed where new residential and industrial landuse is provided and it improves the quality of life given adequate infrastructure facilities.

Transport-related land use occupies 10.03 sq.km, making up 6.29% of the total area in 2021, and is projected to increase to 10.89 sq.km, representing 6.83% in 2041. The recommended industrial town standards fall within the range of 10-12%.

Waterbodies cover 7.00 sq.km, accounting for 4.39% of the total area in both 2021 and 2041. The industrial town standards recommend maintaining a balance in waterbodies. Waterbodies are conserved with 500m buffer for large water bodies and earmarking the rivulets and tributaries.

Agricultural land covers 23.32 sq.km, constituting 14.64% of the total area in 2021, and is proposed to decrease to 2.86 sq.km, comprising 1.79% in 2041.

The total land use in 2021 is 159.32 sq.km, and the proposed land use for 2041 is also 159.32 sq.km.

Overall, the comparison between 2021 and 2041 land use in Tiruppur LPA reflects a dynamic transformation, with increased emphasis on residential, commercial, and industrial development to accommodate a growing population and economy. While urbanization is on the rise, efforts are also being made to balance development with the preservation of natural resources and the enhancement of recreational and institutional facilities for the well-being of residents. Effective urban planning and sustainable development will be crucial in achieving these goals.

27

TOURISM AND HERITAGE

27 TOURISM AND HERITAGE

27.1 MAJOR PROPOSALS

- Nanjarayan Bird Santuary is proposed in the Nanjarayan Lake with footpaths, viewing decks, towers and other facilities improving the tourism in the planning area.
- Development of Andipalayam Lake as a tourist Destination with activities including boating, walking area, view deck etc.

27.2 OTHER IMPROVEMENTS REQUIRED IN TOURISM

Tourism development in Tiruppur holds the potential to diversify the city's economy, create jobs, and showcase its cultural heritage. Here's an overview of tourism development in Tiruppur:

Cultural Tourism:

Heritage Sites: Promote and preserve historical sites, temples, and landmarks that showcase Tiruppur's cultural heritage.

Crafts and Arts: Highlight local crafts, traditional artworks, and artisan products through exhibitions and cultural events.

Eco-Tourism:

Natural Attractions: Develop and maintain green spaces, urban forests, and parks for recreational purposes.

Wildlife Sanctuaries: Promote visits to nearby wildlife sanctuaries and nature reserves to attract nature enthusiasts.

Textile Tourism:

Textile Workshops: Organize guided tours of textile factories, showcasing the manufacturing process of garments and textiles.

Shopping Tours: Create guided shopping tours for visitors to explore and purchase textiles and garments.

Religious and Pilgrimage Tourism:

Temples: Promote religious tourism by highlighting ancient temples and their architectural significance.

Spiritual Retreats: Develop spiritual retreat centers to cater to those seeking inner peace and meditation.

Adventure and Sports Tourism:

Adventure Activities: Introduce adventure sports such as trekking, rock climbing, and water sports in suitable locations.

Cycling Trails: Develop cycling routes around the city to promote healthy outdoor activities.

Agri-Tourism:

Farm Visits: Allow tourists to experience rural life by visiting farms, participating in agricultural activities, and learning about traditional practices.

Fruit Picking: Organize fruit-picking activities during harvest seasons, allowing visitors to enjoy fresh produce.

Events and Festivals:

Cultural Festivals: Organize cultural festivals celebrating local traditions, music, dance, and cuisine.

Textile Fairs: Host textile and garment exhibitions that attract industry professionals and tourists interested in fashion.

Infrastructure Development:

Tourist Information Centers: Set up information centers to guide tourists and provide information about attractions, accommodations, and local services.

Accommodation: Develop a range of accommodations, including budget hotels, boutique guesthouses, and eco-friendly resorts.

Community Engagement:

Local Participation: Involve local communities in tourism development, ensuring they benefit economically and culturally.

Homestays: Promote homestays to provide tourists with authentic local experiences and generate income for residents.

Marketing and Promotion:

Digital Presence: Create a dedicated website and social media platforms to promote tourism offerings and share information.

Collaboration: Collaborate with travel agencies, tour operators, and online travel platforms to attract tourists.

Tiruppur's tourism development should focus on sustainability, preserving its cultural heritage, and showcasing the unique aspects that

make the city a desirable destination. By offering diverse experiences, fostering community involvement, and ensuring infrastructure development, Tiruppur can tap into the potential of tourism as a significant contributor to its economy.

28

URBAN GOVERNANCE

28 URBAN GOVERNANCE

28.1 CITIZEN CHARACTER

As per the directions of the Government of Tamil Nadu, the Municipality has published its "Citizens Charter." The primary focus of this charter is to introduce transparency, responsibility, and user-friendliness in its service provision and maintenance. The objectives of this chapter are:

- Provide fast and quality services to citizens.
- Inform the public about time limits to address the problems.
- Ensure transparency in administration.
- Deliver better administration.
- Provide the best civic services to the people of the town with upgraded standards and efficiency.
- Execute civic bodies' works with utmost care and honesty.
- Offer civic services with special care and in a systematic, time-bound manner.

28.2 INSTITUTIONAL FRAMEWORK FOR SERVICE DELIVERY AS PER 74TH CAA

The responsibility for good governance and management is vested with the Municipality. Although the Municipality is responsible for the overall development of the town, including the provision and maintenance of services, there are other agencies responsible for planning, development, and the provision of specific services. Key stakeholders in this regard include various entities and organizations.

Table 121: Institutional Framework for Urban Service Delivery

S.No	Functions	Planning and Designed by	Operation and Maintenance	Source of fund
1	Urban planning including town planning	TCPO/DTCP	District Collector, LPA, Tiruppur Corporation	Central and State Government/ULBs
2	Regulation of land use and construction of building	DTCP	District Collector, LPA, Tiruppur Corporation	Central and State Government/ULBs
3.	Planning for Economic and Social development	DTCP/ LPA	District Collector, LPA, Tiruppur Corporation	Central and State Government/ULBs
4.	Roads and bridges	PWD/NHAI TCPO/DTCP	District Collector, LPA, Tiruppur Corporation, PWD, NHAI	Central and State Government/ULBs
5.	Water supply for domestic and commercial	TWAD/PHED TCPO/DTCP	District Collector, LPA, Tiruppur Corporation TWAD/PHED	Central and State Government/ULBs
6.	Public health and sanitation	PHED/ TCPO	District Collector, LPA, Tiruppur Corporation PHED	Central and State Government/ULBs

S.No	Functions	Planning and Designed by	Operation and Maintenance	Source of fund
	conservancy and solid management			
7.	Slum improvement and Up gradation	TNSCB TCPO/DTCP	District Collector, LPA, Tiruppur Corporation TNSCB	Central and State Government/ULBs
8.	Urban poverty and alleviation	TCPO	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs
9.	Provision of Urban amenities and facilities such as park playground gardens	TCPO/DTCP	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs
10.	Promotion of cultural educational and aesthetic aspects	Tiruppur Corporation TCPO/DTCP	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs
11.	Burial grounds, Cremation, and graveyard	Tiruppur Corporation TCPO/DTCP	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs
12.	Vital Statistics including death and birth	Statistical office TCPO/DTCP	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs

S.No	Functions	Planning and Designed by	Operation and Maintenance	Source of fund
13.	Public amenities including street light, Parking lots, bus stop, and Public Conveniences	Tiruppur Corporation TCPO/DTCP	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs
14.	Regulations of Slaughter houses and tanneries	Tiruppur Corporation TCPO/DTCP	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs
15.	Fire services	Fire service TCPO/DTCP	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs
16.	Safety interest of the weaker section of the society including handicapped	TCPO/DTCP/Tiruppur Corporation	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs
17.	Urban forestry for protection of the environment and promotion ecological aspects	TCPO/DTCP/T.N Forest department	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs

S.No	Functions	Planning and Designed by	Operation and Maintenance	Source of fund
18.	Cattle pounds prevention of cutlery to animals	TCPO/DTCP/Tiruppur Corporation	District Collector, LPA. Tiruppur Corporation TCPO	Central and State Government/ULBs

Source : Tiruppur LPA, Tn.gov.in

28.3 ORGANIZATIONAL MANAGEMENT

As seen from various sections of the report, particularly those relating to service deliveries, there are gaps of various sizes that result in a shortage in the delivery system. This could be overcome by considering certain specific options

- In many service sections of the Municipality, there are vacant positions that could be filled. However, filling these vacancies alone may not guarantee a completely satisfactory delivery of services, as it necessitates efficient personnel management
- The organization and delivery mechanism in certain personnel-intensive service sectors need modernization. To highlight a few crucial areas, Solid Waste Management, which involves a large number of workers and staff, could be enhanced through the adoption of localized and more efficient composting and landfill systems. This modernization initiative could be delegated to NGOs, voluntary organizations, or even the respective resident associations in various colonies. This approach has proven to be financially rewarding in many locations. Not only will it significantly reduce the Municipality's burden in engaging workers and staff, but it will also improve its resource position by either substantially reducing the cost of solid waste management or generating revenue as a remunerative venture.
- Tamil Nadu Urban Infrastructure and Financial Services have taken steps to identify landfill sites through GIS, involving the collaboration of two or more municipalities for centralized disposal of solid waste. This collaborative approach aims to reduce the cost of solid waste management for each municipality.
- Privatizing the operation and maintenance of the water supply system, tax and fee collection, and the upkeep of public assets, especially sanitary and public health units, is a well-established option. This can be implemented through a joint venture between the urban local body and the private sector

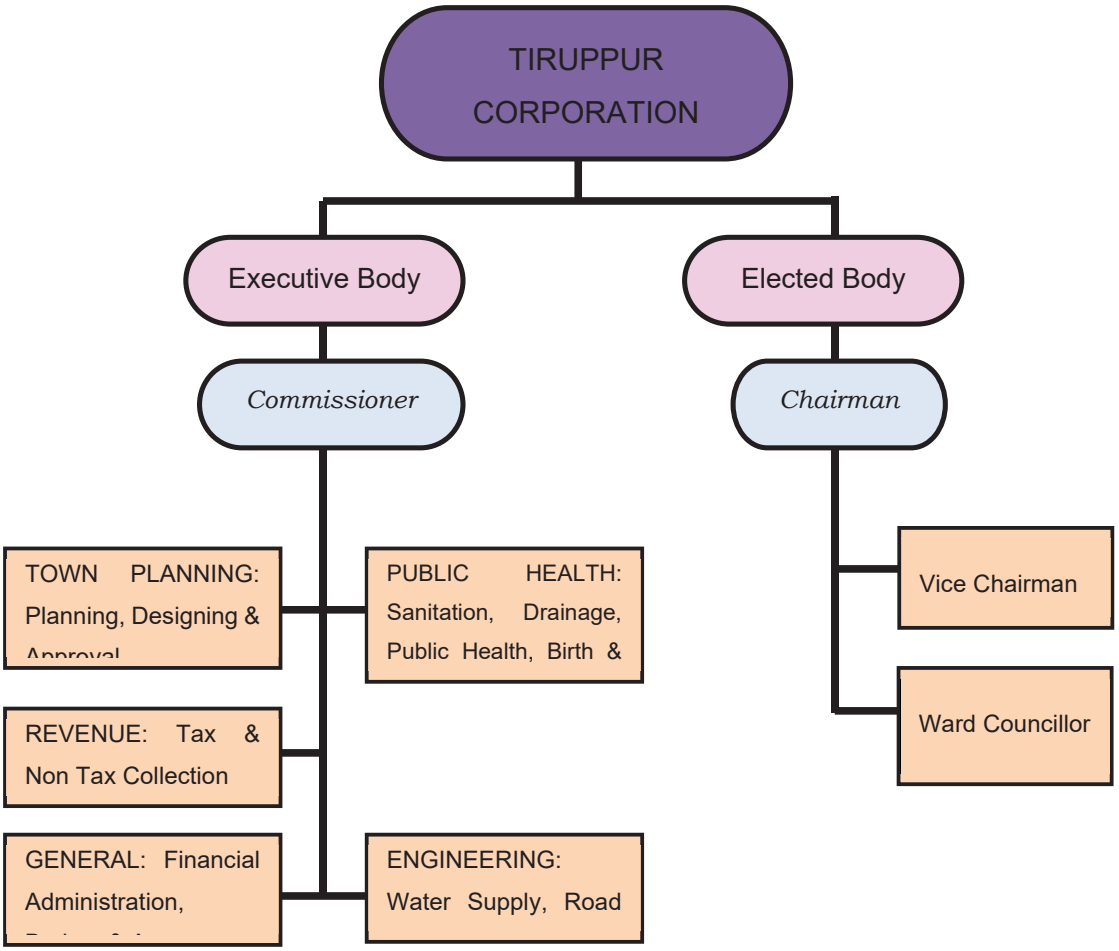


Figure 56 Organisational Structure of Tiruppur corporation

Tamil Nadu Urban Infrastructure and Financial Services have taken steps to identify landfill sites through GIS, collaborating with two or more municipalities for centralized solid waste disposal. This initiative aims to decrease the solid waste management costs for each municipality. Another recognized option involves privatizing the operation and maintenance of the water supply system, as well as the collection of taxes, fees, and the upkeep of public assets, especially sanitary and public health units. This approach could be implemented through a joint venture between the urban local body and the private sector.

29

ZONING REGULATIONS

29 ZONING REGULATIONS

29.1 RESIDENTIAL USE ZONE

(1) In this zone buildings or premises shall be permitted only for the following purposes and accessory uses. Permissible non-residential activity shall be limited to one in a sub-division.

i) Any residence including dwelling, detached, semi-detached, tenements or flats and service apartments.

ii) Professional consulting offices and incidental uses thereto occupying a floor area not exceeding 40 sq.m.

iii) Nursery schools, Primary Schools, High Schools, Higher Secondary Schools, Libraries and reading rooms.

iv) Parks, play grounds, farms, gardens, nurseries, including incidental buildings thereon.

v) Cottage industries listed in G.O.Ps.Nos.565 and 566 dated 12.3.1962 as amended and indicated in Annexure - V, with number of workers not exceeding 8 and electric machineries not exceeding 5 H.P.

vi) Installation of Motor for pumping water, Air conditioning, Lifts, Solar Heaters, Dish Antennas, etc.

vii) Storage of domestic cooking gas cylinders subject to the conditions prescribed in G.O.M.s No.329 dated 24.2.1977 viz. the applicant should obtain necessary clearance from the Director of Fire and Rescue Services and from the Dept. of Explosives of the Govt. of India.

viii) Working women hostels, old age homes

ix) Professional consulting offices, Schools of Commerce including Tutorial Institutions, Govt./Semi Govt. Offices, Banks, Pay Offices, Post Office, Offices of Electricity Board, Chennai City Corporation, Tamil Nadu Cooperative Milk Producers Federation Limited, etc. occupying a floor area not exceeding 300 sq.m.

x) Public Utility Buildings like sewage pumping stations, water works, Fire stations, Telephone exchanges.

xi) Swimming Pool attached to residential activity in a plot.

xii) Daily or weekly markets serving local needs.

xiii) Transport depots, Bus Terminus and Railway Stations.

xiv) Burning, Burial grounds, crematoria and cemeteries.

xv) Air-conditioned Cinema Theatres abutting min. 12 m wide road.

xvi) Banks and Safe Deposit Vaults, Business Office and other Commercial or Financial Institutions occupying floor area not exceeding 500 sq.m. provided the width of the abutting road is minimum 10m.

xvii) Hotels, Restaurants occupying a floor area not exceeding 500 sq.m.

xviii) Hostels, Dormitories, Boarding and Lodging houses and Welfare Institutions occupying a floor area not exceeding 500 sq.m.

xix) Clinics, Hospitals, Dispensaries, Nursing Homes and other Health facilities occupying a floor area not exceeding 500 sq.m. provided the width of the abutting road is minimum 10m.

xx) Establishments and shops retailing in vegetables, fruits, flowers, fish, meat and such other daily necessities of the residents, including provisions, soft drinks, newspapers, tea stalls, milk kiosks, cycle repair shops, internet / computer centres, ATMs etc. departmental stores occupying floor area not exceeding 500 sq.m. or organized markets.

xxi) Bakeries, Confectionaries, Laundries, tailoring, Goldsmith shops, hairdressing saloons occupying floor area not exceeding 500 sq.m.

xxii) Fuel filling stations, and automobile service stations with installation not exceeding 30 HP.

xxiii) Industries listed by the Tamil Nadu Pollution Control Board as 'Green' Industries listed in Annexure - VI and subject to maximum installation of 30 HP.

xxiv) Taxi stands and car parking including multilevel parking

xxv) Automobile workshop with floor area not exceeding 300 sq.m and electrical installations not exceeding 15 H.P.

xxvi) Religious buildings and welfare institutions occupying a floor area not exceeding 500 sq.m.

(2) All uses/activities not specifically mentioned under sub-regulations (1) above shall be prohibited in this zone.

29.2 COMMERCIAL USE ZONE

(1) In this zone, buildings or premises shall be permitted only for the following purposes and accessory uses:

i) All activities that is permissible in Residential Zone without restriction of floor area (except industries)

ii) All commercial and business uses including all shops, stores, markets, shopping centers and uses connected with the display and retail sale of merchandise but excluding explosives, obnoxious products and other materials likely to cause health hazards and danger to lives.

iii) Fuel filling stations, automobile service stations and workshops with installation not exceeding 50 HP.

iv) Industries listed out by the Tamil Nadu Pollution Control Board as "Green" Industries listed in Annexure - VI and as "Orange Industries" listed in Annexure - VII subject to a maximum installation of 50 HP.

v) Research, Experimental and Testing laboratories not involving danger of fire, explosives or health hazards.

vi) Warehouses and other uses connected with storage of wholesale trade in commodities not notified under the Specified Commodity Act, but excluding storage of explosives or products which are either obnoxious or likely to cause health hazards.

vii) Buildings for development of software and its associated computer technology applications, IT Parks.

viii) Broadcasting, telecasting and telecommunication stations.

ix) Helipads subject to clearance by Civil Aviation department, Directorate of Fire and Rescue Services and police department.

x) Manufacture of computer hardware

xi) Preview theatres and dubbing theatres.

xii) Colleges, higher educational, technical and research institutions.

xiii) Foreign Missions, Embassies and Consulates.

xiv) Air-conditioned Cinema Theatres along roads of width min. 12 m and Assembly Halls and Kalyana Mandapams along roads of width min. 15 m and Multiplex / Malls along roads of width min. 18m.

(2) All uses/activities not specifically mentioned under sub-regulations (1) shall be prohibited.

29.3 INDUSTRIAL USE ZONE

(1) In this zone, buildings or premises shall be permitted only for the following purposes and accessory uses:

i) In approved layouts residential, commercial, institutional and other activities as designated therein.

ii) Using electrical H.P or with employees not exceeding 100 in number but excluding industries of obnoxious and hazardous nature by reasons of odour, effluent, dust, smoke, gas, vibration or other wise likely to cause danger or nuisance to public health or amenity.

iii) Residential buildings for security and other essential staff required to be maintained in the premises.

iv) All use permissible in Residential and commercial use zones

v) Storage of petroleum timber and explosives and inflammable and dangerous materials

vi) All industries (without restrictions of H.P or floor area or number of workers) except those industries listed under as Red category in Annexure of these regulations.

vii) Container terminals (at sites abutting or gaining access from minimum 18 metre wide public road)

(2) All uses not specifically mentioned under sub-regulations (1) shall be prohibited in this zone.

29.4 INSTITUTIONAL USE ZONE

(1) In this zone buildings or premises shall be permitted only for the following purposes and accessory uses:

i) Educational institutions including colleges and institutions of higher education, research, technical and training in nature.

ii) Govt. and quasi Govt. offices and institutions

iii) Professional and business offices

iv) Art galleries, Archives, Museums, Public Libraries, Social and Cultural Institutions and Religious buildings.

v) Hospitals, Sanatoria, and other medical and public health institutions.

vi) Parks, Play fields, Swimming pools and other public and Semi public open spaces.

vii) Broadcasting, telecasting, installations and Weather stations.

viii) Public utilities, municipal and community facilities.

ix) Nursery, Primary and Secondary Schools.

x) Social and Cultural Institutions including Sabhas.

xi) Residential and commercial spaces not exceeding 500 sq.m.permissible in this use zone.

xii) Transport terminals, bus and railway stations, Airport, Harbour, and parking lots including multilevel parking lots

xiii) Cinema theatres and others entertainment centres and Kalyana mandapams.

xiv) Clubs, community halls, Assembly halls, Auditoriums and Theatres

xv) Sports stadium, Recreation Complexes, Exhibition, Fares.

xvi) Burial Ground, Burning Ground, Cemeteries, crematoria

xvii) Buildings for development of software and its associated computer technology applications I.T.Parks

xviii) Manufacture of computer hardware

xix) Bio- informatics centres.

xx) Container terminals at sites abutting and gaining access from public roads of width minimum 18 metres

xxi) Foreign mission, Embassies, Consulates

xxii) All public and semi public recreational uses and open spaces, parks and play grounds, zoological and botanical gardens, nurseries, waterfront developments, museums and memorials.

xxiii) Theme parks and amusement parks

xxiv) Open Air Theatre, Exhibitions, Circuses, Fairs and Festival grounds, public utilities.

xxv) Installations that may be necessary for the uses mentioned above.

xxvi) Installations that may be necessary for the uses mentioned above.

(2) All uses not specifically mentioned under sub regulations (1) shall be prohibited. Note:

In the rest of the state, areas zoned for public and semi public use zone and educational use zone shall be equated to institutional use zone and the activities shall be regulated accordingly.

29.5 OPEN SPACE AND RECREATIONAL USE ZONE

(1) In this zone buildings or premises shall be permitted for the following purposes and accessory uses:

i) All public and semi public recreational uses and open spaces, parks and play grounds, zoological and botanical gardens, nurseries, waterfront developments, museums and memorials.

ii) Theme parks and amusement parks

iii) Open Air Theatre, Exhibitions, Circuses, Fairs and Festival grounds, public utilities.

iv) Burial and burning grounds or crematoria.

v) Incidental residential uses for essential staff required to be maintained in the premises.

vi) Incidental commercial uses

vii) Hotels and restaurants not exceeding 300 sq.m.

viii) Beach cottages each not exceeding 100 sq.m. in floor area and 7.5 m in height.

ix) Sports stadia and recreational complexes.

x) Installations that may be necessary for the uses mentioned above.

(2) All uses not specifically mentioned in sub regulations (1) shall be prohibited.

29.6 AGRICULTURAL USE ZONE:

(1) In the Agricultural use zone buildings or premises shall be normally permitted for the following purpose and accessory uses:

A. Normally permissible uses:

i) All Agricultural uses.

ii) Farm houses and buildings for agricultural activities.

iii) All the uses permissible in the residential use zone within the natham boundaries (settlements)

iv) Dairy and cattle farms

v) Piggeries and poultry farms

vi) Forestry

vii) Storing and drying of fertilizers

viii) Installation of electric machinery of not exceeding 15 horse power may be allowed for the uses mentioned above.

ix) Sewage farms and garbage dumping sites.

x) Mills for grinding, hulling, etc. of cereals, pulses, food grains and oil seeds provided the site has proper access and installations do not exceed 50 H.P.

xi) Burning and Burial grounds, Crematoria and Cemeteries.

(2) All uses not specifically mentioned in sub regulations (1) shall be prohibited.

30

BLOCK COST ESTIMATE

30 BLOCK COST ESTIMATE

S.No.	Proposals	Cost of Private Land (INR Crores)	Development Cost (INR Crores)	Total Cost (INR Crores)
	Economic Proposals			
1	Knitwear Cluster in Palladam		22.00	22.00
2	Trade Centre		120.00	120.00
3	Skill Development Centre		60.00	60.00
4	Technology Parks related to Textile	8.00	25.00	33.00
5	Renewable energy Projects		50.00	50.00
	Mobility Proposals			
6	Ring Roads	15.00	240.00	255.00
7	Widening of Radial Roads	40.00	400.00	440.00
8	Sub Arterial Roads	30.00	550.00	580.00
9	Bus Terminals	6.00	80.00	86.00
10	Truck Terminals	6.00	100.00	106.00
11	Railway Stations		20.00	20.00
12	Road Over Bridges		18.00	18.00
13	Road Under Bridges		5.00	5.00
14	River Bridges		80.00	80.00
	Physical Infrastructure			
15	Source Augmentation		20.00	20.00
16	OHTs		85.00	85.00
17	Distribution System		800.00	800.00
18	SCADA		60.00	60.00
19	STP		200.00	200.00

20	UGSS		1200.00	1200.00
21	CETP		200.00	200.00
22	Storm Water Drains		300.00	300.00
23	Rejuvenation of Water Bodies		200.00	200.00
24	MCC		400.00	400.00
25	Sub Stations		300.00	300.00
	Social Infrastructure			
26	Parks		60.00	60.00
27	Sports Infrastructure	2.00	20.00	22.00
28	Fire Station		25.00	25.00
29	Police Station		40.00	40.00
	Environment			
30	Urban Forestry		50.00	50.00
31	River Front Development		400.00	400.00
32	Lakefront Development		300.00	300.00
33	Checkdams		20.00	20.00
	Tourism Development			
34	Andipalayam Lake		25.00	25.00
35	Nanjurayan Bird Sanctuary		60.00	60.00
Total		107.00	6535.00	6642.00

- Cost arrived is excluding the cost of Land acquisition and compensation as per The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act, 2013 (LARR).

31

WAY FORWARD

31 WAY FORWARD

The expansion and advancement of Tiruppur town are being strategically fostered through a focus on sustainable development practices. The aim is to invigorate the growth potential while maintaining a balanced approach to urbanization. This approach ensures economic prosperity, social harmony, and environmental integrity both in the present and for the generations to come. In this pursuit, a meticulously crafted land use plan has been formulated for the Tiruppur Local Planning Area (LPA).

This proposed land use plan has been designed to channelize the town's growth in a systematic and organized manner. By analyzing the existing growth trends, identifying suitable developmental areas, and pinpointing potential sectors of the town, the plan has been carefully shaped. The plan not only aims at accommodating the current population's needs but also takes into consideration the town's future requirements.

A core aspect of this land use plan is the inclusion of major proposals that stand to propel economic activity within Tiruppur. Specifically, the plan focuses on the establishment of agro-based and knitware-based industries. Ample land has been allocated in the plan to cater to these significant proposals. By nurturing these projects, the plan aims to generate substantial employment opportunities within the Tiruppur Local Planning Area. This strategy holds the potential to bolster the town's economy while creating a diverse range of jobs for the local population.

The proposed land use plan for Tiruppur LPA 2041 is not solely concerned with economic development; it also emphasizes the improvement of the overall quality of life for its residents. By embedding various project proposals within the plan, a holistic approach is being taken to enhance living conditions. These proposals are expected to provide much-needed employment opportunities, contributing to livelihoods and livelihood security for the community.

In conclusion, the orchestrated growth of Tiruppur town through the proposed land use plan underscores a commitment to sustainable urbanization. By focusing on economic growth through specific industries and allocating land judiciously, the plan ensures that Tiruppur's trajectory of development remains balanced and beneficial. This approach ultimately works towards a brighter future for the town, characterized by thriving economic activity, improved living standards, and a harmonious social fabric.

ANNEXURE

32 ANNEXURES

LIST OF VILLAGES WITH 2011,2001,1991,1981 POPULATION

TOWNS/VILLAGES	2011 POPULATION	2001 POPULATION	1991 POPULATION	1981 POPULATION
Agraharaperiapalayam	2861	2473	2197	1736
Alagumalai	5828	4913	3877	4861
Anuppatti	2018	1868	1590	1402
Chittambalam	3648	2538	2142	2132
Elavanthi	2309	2189	2258	2582
Ettiveerampalayam	8814	5634	3734	2717
Ganapathipalayam	14022	9155	6453	5382
Ichipatti	9527	4848	5728	4165
K.Krishnapuram	3024	1907	2347	2117
Kalipalayam	4743	1906	1704	1853
Kandiankoil	6953	6983	5575	6238
Kaniampundi	2888	1732	1571	1535
Karadibavi	3647	3113	2823	2485
Kasba Ayyampalayam	3430	3200	2318	2421
Kattur	6765	6498	5767	5079
Kethanur	3797	3403	2869	2931
Kodangipalayam	6987	5583	3984	1410
Madappur	5496	4469	4376	4009
Mallegoundenpalayam	1448	1441	1199	1356
Mudalipalayam	13900	6267	3344	2984

TOWNS/VILLAGES	2011 POPULATION	2001 POPULATION	1991 POPULATION	1981 POPULATION
Muthampalayam	1463	1254	1087	952
Nachipalayam	2815	1934	1730	1508
Naranapuram	14018	8161	2412	1396
North Avanashipalayam	2587	2918	1791	1324
Panickkampatti	3982	3267	2572	2335
Paruvai	3778	3033	2941	2715
Peruntholuvu	4631	3698	3366	3398
Pongalur	11688	8437	5466	4714
Pongupalayam	5811	3357	2927	2359
Poomalur	7605	6058	3724	3334
Pudupalayam	7671	6084	4829	4448
Puliampatti	2041	2036	1855	1940
South Avanashipalayam	11575	7257	7660	7308
Sukkampalayam	4420	3395	2747	2477
Thekkalur	12688	7140	5644	4882
Thonguttipalayam	5200	4684	4030	3595
Ugayanur	5022	4395	3673	3754
Vadugapalayam	5595	4082	3223	3527
Vavipalayam	6468	6363	5801	5718
velampalayam	3512	2424	1751	1197
Velarasikallipalayam	5648	4598	3806	3948
Velarasivadamalaipal	4487	4047	3599	3407

TOWNS/VILLAGES	2011 POPULATION	2001 POPULATION	1991 POPULATION	1981 POPULATION
ayam				
Perumanallur (CT)	7356	4994	3762	2509
Palangarai (CT)	17248	9821	6830	5599
Sembianallur (CT)	7586	4514	3530	2890
Velayudampalayam (CT)	9192	6064	4676	3980
Chengappalli (CT)	6587	3494	3478	3731
Sircar Periapalayam (CT)	5986	5524	5147	4852
Kanakkampalayam (CT)	12160	5455	3289	5367
Neripperichal (CT)	53579	16372	10902	6061
Chettipalayam (CT)	37620	20184	9254	5652
Thottipalayam (CT)	40503	26818	8383	3695
Mannarai (CT)	17261	8496	3039	2340
Mangalam (CT)	17699	10016	6914	5448
Andipalayam (CT)	25539	11350	5563	3326
Iduvai (CT)	8006	4413	3082	2663
Muthanampalayam (CT)	26014	9548	6166	4738
Veerapandi (CT)	50301	21848	15315	6112
Karaipudur (CT)	28602	15420	7355	5575
Semmipalayam (CT)	8429	6184	4322	4172
Thirumuruganpoondi (TP)	31528	18557	9286	7114

TOWNS/VILLAGES	2011 POPULATION	2001 POPULATION	1991 POPULATION	1981 POPULATION
Avanashi (TP)	28868	22336	17273	15182
Uthukuli (TP)	10130	8294	7857	6574
Samalapuram (TP)	20691	14705	12045	10023
Palladam (M)	42225	30016	24845	16528
Velampalayam (M)	87427	45679	26248	16576
S.Nallur (M)	70115	29495	13421	6872
Tiruppur (M.Corp)	444352	344543	235661	165223
TOTAL LPA	**1359814**	**882882**	**600133**	**452433**

LIST OF VILLAGES WITH 2011 POPULATION

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION	2011 POPULATION MALE	2011 POPULATION FEMALE	HOUSEHOLDS
Agraharaperiapalayam	5.37	2861	1484	1377	776
Alagumalai	18.52	5828	2928	2900	1659
Anuppatti	10.53	2018	1006	1012	606
Chittambalam	13.87	3648	1715	1933	885
Elavanthi	14.39	2309	1136	1173	688
Ettiveerampalayam	14.90	8814	4412	4402	2441
Ganapathipalayam	22.88	14022	7104	6918	4023
Ichipatti	16.00	9527	4892	4635	2754
K.Krishnapuram	9.20	3024	1502	1522	884
Kalipalayam	10.87	4743	2378	2365	1284
Kandiankoil	38.22	6953	3453	3500	2008
Kaniampundi	7.85	2888	1476	1412	753
Karadibavi	12.62	3647	1809	1838	1040
Kasba Ayyampalayam	11.12	3430	1728	1702	1024
Kattur	26.98	6765	3402	3363	1968
Kethanur	17.54	3797	1885	1912	1128
Kodangipalayam	17.67	6987	3494	3493	1961
Madappur	31.59	5496	2770	2726	1609
Mallegoundenpalayam	9.89	1448	755	693	421
Mudalipalayam	17.25	13900	6948	6952	3941

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION	2011 POPULATION MALE	2011 POPULATION FEMALE	HOUSEHOLDS
Muthampalayam	4.15	1463	761	702	441
Nachipalayam	10.49	2815	1436	1379	802
Naranapuram	21.10	14018	7047	6971	3862
North Avanashipalayam	9.48	2587	1344	1243	771
Panickkampatti	12.67	3982	1968	2014	1196
Paruvai	12.07	3778	1909	1869	1098
Peruntholuvu	19.61	4631	2344	2287	1295
Pongalur	18.5	11688	5868	5820	3348
Pongupalayam	9.28	5811	3141	2670	1598
Poomalur	17.96	7605	3829	3776	2209
Pudupalayam	14.76	7671	3869	3802	2119
Puliampatti	7.32	2041	1000	1041	604
South Avanashipalayam	25.8	11575	5820	5755	3375
Sukkampalayam	14.27	4420	2238	2182	1247
Thekkalur	21.42	12688	6076	6612	3031
Thonguttipalayam	17.95	5200	2649	2551	1507
Ugayanur	19.36	5022	2538	2484	1387
Vadugapalayam	14.76	5595	2733	2862	1569
Vavipalayam	34.73	6468	3253	3215	1904
velampalayam	9.56	3512	1789	1723	971
Velarasikallipalayam	23.09	5648	2822	2826	1653

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION	2011 POPULATION MALE	2011 POPULATION FEMALE	HOUSEHOLDS
Velarasivadamalaipalayam	23.99	4487	2257	2230	1303
Perumanallur (CT)	7.00	7356	3740	3616	2085
Palangarai (CT)	14.60	17248	8774	8474	4781
Sembianallur (CT)	6.97	7586	3781	3805	2122
Velayudampalayam (CT)	7.97	9192	4592	4600	2607
Chengappalli (CT)	12.92	6587	3325	3262	1973
Sircar Periapalayam (CT)	5.27	5986	2977	3009	1704
Kanakkampalayam (CT)	7.81	12160	6074	6086	3386
Neripperichal (CT)	19.67	53579	27129	26450	14873
Chettipalayam (CT)	10.39	37620	19072	18548	10439
Thottipalayam (CT)	5.69	40503	20573	19930	11354
Mannarai (CT)	8.23	17261	8797	8464	4796
Mangalam (CT)	10.86	17699	8847	8852	4782
Andipalayam (CT)	9.01	25539	12773	12766	7010
Iduvai (CT)	9.34	8006	3984	4022	2183
Muthanampalayam (CT)	21.87	26014	13208	12806	7246
Veerapandi (CT)	21.02	50301	25600	24701	13957
Karaipudur (CT)	22.33	28602	14808	13794	8157
Semmipalayam	7.37	8429	4285	4144	2380

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION	2011 POPULATION MALE	2011 POPULATION FEMALE	HOUSEHOLDS
(CT)					
Thirumuruganpoondi (TP)	7.37	31528	15949	15579	8789
Avanashi (TP)	11.65	28868	13266	15602	7443
Uthukuli (TP)	5.57	10130	5027	5103	3000
Samalapuram (TP)	21.75	20691	10404	10287	5938
Palladam (M)	19.42	42225	21018	21207	12054
Velampalayam (M)	14.00	87427	44353	43074	24381
S.Nallur (M)	26.00	70115	35677	34438	19499
Tiruppur (M.Corp)	27.20	444352	227311	217041	124617
	1030.86	**1359814**	**688312**	**671502**	**380699**

LIST OF VILLAGES WITH 2011,2001,1991 GROWTH RATE

TOWNS/VILLAGES	GROWTH RATE 2011	GROWTH RATE 2001	GROWTH RATE 1991
Agraharaperiapalayam	15.69%	12.56%	26.56%
Alagumalai	18.62%	26.72%	-20.24%
Anuppatti	8.03%	17.48%	13.41%
Chittambalam	43.74%	18.49%	0.47%
Elavanthi	5.48%	-3.06%	-12.55%
Ettiveerampalayam	56.44%	50.88%	37.43%
Ganapathipalayam	53.16%	41.87%	19.90%
Ichipatti	96.51%	-15.36%	37.53%
K.Krishnapuram	58.57%	-18.75%	10.86%
Kalipalayam	148.85%	11.85%	-8.04%
Kandiankoil	-0.43%	25.26%	-10.63%
Kaniampundi	66.74%	10.25%	2.35%
Karadibavi	17.15%	10.27%	13.60%
Kasba Ayyampalayam	7.19%	38.05%	-4.25%
Kattur	4.11%	12.68%	13.55%
Kethanur	11.58%	18.61%	-2.12%
Kodangipalayam	25.15%	40.14%	182.55%
Madappur	22.98%	2.13%	9.15%
Mallegoundenpalayam	0.49%	20.18%	-11.58%
Mudalipalayam	121.80%	87.41%	12.06%
Muthampalayam	16.67%	15.36%	14.18%
Nachipalayam	45.55%	11.79%	14.72%
Naranapuram	71.77%	238.35%	72.78%

TOWNS/VILLAGES	GROWTH RATE 2011	GROWTH RATE 2001	GROWTH RATE 1991
North Avanashipalayam	-11.34%	62.93%	35.27%
Panickkampatti	21.89%	27.02%	10.15%
Paruvai	24.56%	3.13%	8.32%
Peruntholuvu	25.23%	9.86%	-0.94%
Pongalur	38.53%	54.35%	15.95%
Pongupalayam	73.10%	14.69%	24.08%
Poomalur	25.54%	62.67%	11.70%
Pudupalayam	26.08%	25.99%	8.57%
Puliampatti	0.25%	9.76%	-4.38%
South Avanashipalayam	59.50%	-5.26%	4.82%
Sukkampalayam	30.19%	23.59%	10.90%
Thekkalur	77.70%	26.51%	15.61%
Thonguttipalayam	11.02%	16.23%	12.10%
Ugayanur	14.27%	19.66%	-2.16%
Vadugapalayam	37.07%	26.65%	-8.62%
Vavipalayam	1.65%	9.69%	1.45%
velampalayam	44.88%	38.44%	46.28%
Velarasikallipalayam	22.84%	20.81%	-3.60%
Velarasivadamalaipalayam	10.87%	12.45%	5.64%
Perumanallur (CT)	47.30%	32.75%	49.94%
Palangarai (CT)	75.62%	43.79%	21.99%
Sembianallur (CT)	68.05%	27.88%	22.15%
Velayudampalayam (CT)	51.58%	29.68%	17.49%
Chengappalli (CT)	88.52%	0.46%	-6.78%

TOWNS/VILLAGES	GROWTH RATE 2011	GROWTH RATE 2001	GROWTH RATE 1991
Sircar Periapalayam (CT)	8.36%	7.32%	6.08%
Kanakkampalayam (CT)	122.91%	65.86%	-38.72%
Nerippericchal (CT)	227.26%	50.17%	79.87%
Chettipalayam (CT)	86.39%	118.11%	63.73%
Thottipalayam (CT)	51.03%	219.91%	126.87%
Mannarai (CT)	103.17%	179.57%	29.87%
Mangalam (CT)	76.71%	44.87%	26.91%
Andipalayam (CT)	125.01%	104.03%	67.26%
Iduvai (CT)	81.42%	43.19%	15.73%
Muthanampalayam (CT)	172.45%	54.85%	30.14%
Veerapandi (CT)	130.23%	42.66%	150.57%
Karaipudur (CT)	85.49%	109.65%	31.93%
Semmipalayam (CT)	36.30%	43.08%	3.60%
Thirumuruganpoondi (TP)	69.90%	99.84%	30.53%
Avanashi (TP)	29.24%	29.31%	13.77%
Uthukuli (TP)	22.14%	5.56%	19.52%
Samalapuram (TP)	40.71%	22.08%	20.17%
Palladam (M)	40.67%	20.81%	50.32%
Velampalayam (M)	91.39%	74.03%	58.35%
S.Nallur (M)	137.72%	119.77%	95.30%
Tiruppur (M.Corp)	28.97%	46.20%	42.63%
TOTAL LPA	54.02%	47.11%	32.65%

LIST OF VILLAGES WITH 2011 AREA, DENSITY, HOUSEHOLDS AND HOUSEHOLD SIZE

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION	HOUSEHOLDS	HH SIZE	DENSITY
Agraharaperiapalayam	5.37	2861	776	3.7	533
Alagumalai	18.52	5828	1659	3.5	315
Anuppatti	10.53	2018	606	3.3	192
Chittambalam	13.87	3648	885	4.1	263
Elavanthi	14.39	2309	688	3.4	160
Ettiveerampalayam	14.90	8814	2441	3.6	592
Ganapathipalayam	22.88	14022	4023	3.5	613
Ichipatti	16.00	9527	2754	3.5	595
K.Krishnapuram	9.20	3024	884	3.4	329
Kalipalayam	10.87	4743	1284	3.7	436
Kandiankoil	38.22	6953	2008	3.5	182
Kaniampundi	7.85	2888	753	3.8	368
Karadibavi	12.62	3647	1040	3.5	289
Kasba Ayyampalayam	11.12	3430	1024	3.3	308
Kattur	26.98	6765	1968	3.4	251
Kethanur	17.54	3797	1128	3.4	216
Kodangipalayam	17.67	6987	1961	3.6	395
Madappur	31.59	5496	1609	3.4	174
Mallegoundenpalayam	9.89	1448	421	3.4	146
Mudalipalayam	17.25	13900	3941	3.5	806
Muthampalayam	4.15	1463	441	3.3	353
Nachipalayam	10.49	2815	802	3.5	268
Naranapuram	21.10	14018	3862	3.6	664
North Avanashipalayam	9.48	2587	771	3.4	273
Panickkampatti	12.67	3982	1196	3.3	314
Paruvai	12.07	3778	1098	3.4	313
Peruntholuvu	19.61	4631	1295	3.6	236

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION	HOUSEHOLDS	HH SIZE	DENSITY
Pongalur	18.5	11688	3348	3.5	632
Pongupalayam	9.28	5811	1598	3.6	626
Poomalur	17.96	7605	2209	3.4	423
Pudupalayam	14.76	7671	2119	3.6	520
Puliampatti	7.32	2041	604	3.4	279
South Avanashipalayam	25.8	11575	3375	3.4	449
Sukkampalayam	14.27	4420	1247	3.5	310
Thekkalur	21.42	12688	3031	4.2	592
Thonguttipalayam	17.95	5200	1507	3.5	290
Ugayanur	19.36	5022	1387	3.6	259
Vadugapalayam	14.76	5595	1569	3.6	379
Vavipalayam	34.73	6468	1904	3.4	186
velampalayam	9.56	3512	971	3.6	367
Velarasikallipalayam	23.09	5648	1653	3.4	245
Velarasivadamalaipalayam	23.99	4487	1303	3.4	187
Perumanallur (CT)	7.00	7356	2085	3.5	1051
Palangarai (CT)	14.60	17248	4781	3.6	1181
Sembianallur (CT)	6.97	7586	2122	3.6	1088
Velayudampalayam (CT)	7.97	9192	2607	3.5	1153
Chengappalli (CT)	12.92	6587	1973	3.3	510
Sircar Periapalayam (CT)	5.27	5986	1704	3.5	1136
Kanakkampalayam (CT)	7.81	12160	3386	3.6	1557
Neripperichal (CT)	19.67	53579	14873	3.6	2724
Chettipalayam (CT)	10.39	37620	10439	3.6	3621
Thottipalayam (CT)	5.69	40503	11354	3.6	7118

TOWNS/VILLAGES	AREA IN SQ.KM	2011 POPULATION	HOUSEHOLDS	HH SIZE	DENSITY
Mannarai (CT)	8.23	17261	4796	3.6	2097
Mangalam (CT)	10.86	17699	4782	3.7	1630
Andipalayam (CT)	9.01	25539	7010	3.6	2835
Iduvai (CT)	9.34	8006	2183	3.7	857
Muthanampalayam (CT)	21.87	26014	7246	3.6	1189
Veerapandi (CT)	21.02	50301	13957	3.6	2393
Karaipudur (CT)	22.33	28602	8157	3.5	1281
Semmipalayam (CT)	7.37	8429	2380	3.5	1144
Thirumuruganpoondi (TP)	7.37	31528	8789	3.6	4278
Avanashi (TP)	11.65	28868	7443	3.9	2478
Uthukuli (TP)	5.57	10130	3000	3.4	1819
Samalapuram (TP)	21.75	20691	5938	3.5	951
Palladam (M)	19.42	42225	12054	3.5	2174
Velampalayam (M)	14.00	87427	24381	3.6	6245
S.Nallur (M)	26.00	70115	19499	3.6	2697
Tiruppur (M.Corp)	27.20	444352	124617	3.6	16336

LIST OF VILLAGES WITH 2011 SC POPULATION

TOWNS/VILLAGES	SC POPULATION	ST POPULATION
Agraharaperiapalayam	4457	15
Alagumalai	910	4
Anuppatti	899	0
Chittambalam	3032	76
Elavanthi	1407	3
Ettiveerampalayam	1771	4
Ganapathipalayam	1533	4
Ichipatti	1474	4
K.Krishnapuram	5257	139
Kalipalayam	4574	56
Kandiankoil	24317	282
Kaniampundi	728	10
Karadibavi	3009	186
Kasba Ayyampalayam	1984	46
Kattur	2229	18
Kethanur	933	0
Kodangipalayam	2666	4
Madappur	2588	17
Mallegoundenpalayam	2243	11
Mudalipalayam	3079	26
Muthampalayam	4205	343
Nachipalayam	3201	44
Naranapuram	5862	9
North Avanashipalayam	3125	14
Panickkampatti	1216	0
Paruvai	1972	52
Peruntholuvu	615	1
Pongalur	1963	0
Pongupalayam	354	0
Poomalur	829	0
Pudupalayam	1512	0

TOWNS/VILLAGES	SC POPULATION	ST POPULATION
Puliampatti	2423	0
South Avanashipalayam	1426	16
Sukkampalayam	612	0
Thekkalur	873	0
Thonguttipalayam	1898	0
Ugayanur	598	0
Vadugapalayam	958	0
Vavipalayam	826	0
velampalayam	2087	0
Velarasikallipalayam	1334	3
Velarasivadamalaipalayam	1207	0
Perumanallur (CT)	3332	8
Palangarai (CT)	114	0
Sembianallur (CT)	585	0
Velayudampalayam (CT)	2010	4
Chengappalli (CT)	772	0
Sircar Periapalayam (CT)	1218	0
Kanakkampalayam (CT)	525	156
Nerippericha1 (CT)	1797	10
Chettipalayam (CT)	267	0
Thottipalayam (CT)	1968	14
Mannarai (CT)	673	0
Mangalam (CT)	2999	0
Andipalayam (CT)	1136	0
Iduvai (CT)	2793	29
Muthanampalayam (CT)	1414	0
Veerapandi (CT)	1608	1
Karaipudur (CT)	497	6
Semmipalayam (CT)	863	0
Thirumuruganpoondi (TP)	1402	0
Avanashi (TP)	1342	3
Uthukuli (TP)	439	0

TOWNS/VILLAGES	SC POPULATION	ST POPULATION
Samalapuram (TP)	1427	0
Palladam (M)	1656	0
Velampalayam (M)	856	0
S.Nallur (M)	995	1
Tiruppur (M.Corp)	2517	5

LIST OF VILLAGES WITH 2011 LITERATES

TOWNS/VILLAGES	2011 POPULATION	TOTAL LITERATES	LITERACY RATE	ILLITERATES	ILLITERACY RATE
Agraharaperiapalayam	2861	1712	59.84%	1149	40.16%
Alagumalai	5828	3287	56.40%	2541	43.60%
Anuppatti	2018	1336	66.20%	682	33.80%
Chittambalam	3648	2657	72.83%	991	27.17%
Elavanthi	2309	1291	55.91%	1018	44.09%
Ettiveerampalayam	8814	6007	68.15%	2807	31.85%
Ganapathipalayam	14022	9682	69.05%	4340	30.95%
Ichipatti	9527	6315	66.29%	3212	33.71%
K.Krishnapuram	3024	1891	62.53%	1133	37.47%
Kalipalayam	4743	2945	62.09%	1798	37.91%
Kandiankoil	6953	4255	61.20%	2698	38.80%
Kaniampundi	2888	2108	72.99%	780	27.01%
Karadibavi	3647	2479	67.97%	1168	32.03%
Kasba Ayyampalayam	3430	2451	71.46%	979	28.54%
Kattur	6765	4055	59.94%	2710	40.06%
Kethanur	3797	2450	64.52%	1347	35.48%
Kodangipalayam	6987	4614	66.04%	2373	33.96%
Madappur	5496	3440	62.59%	2056	37.41%
Mallegoundenpalayam	1448	940	64.92%	508	35.08%
Mudalipalayam	13900	9832	70.73%	4068	29.27%
Muthampalayam	1463	954	65.21%	509	34.79%
Nachipalayam	2815	1918	68.13%	897	31.87%
Naranapuram	14018	10117	72.17%	3901	27.83%
North Avanashipalayam	2587	1527	59.03%	1060	40.97%
Panickkampatti	3982	2576	64.69%	1406	35.31%

TOWNS/VILLAGES	2011 POPULATION	TOTAL LITERATES	LITERACY RATE	ILLITERATES	ILLITERACY RATE
Paruvai	3778	2682	70.99%	1096	29.01%
Peruntholuvu	4631	2929	63.25%	1702	36.75%
Pongalur	11688	8367	71.59%	3321	28.41%
Pongupalayam	5811	3973	68.37%	1838	31.63%
Poomalur	7605	4602	60.51%	3003	39.49%
Pudupalayam	7671	4819	62.82%	2852	37.18%
Puliampatti	2041	1529	74.91%	512	25.09%
South Avanashipalayam	11575	7386	63.81%	4189	36.19%
Sukkampalayam	4420	2947	66.67%	1473	33.33%
Thekkalur	12688	9063	71.43%	3625	28.57%
Thonguttipalayam	5200	3075	59.13%	2125	40.87%
Ugayanur	5022	3261	64.93%	1761	35.07%
Vadugapalayam	5595	3912	69.92%	1683	30.08%
Vavipalayam	6468	3841	59.38%	2627	40.62%
velampalayam	3512	2101	59.82%	1411	40.18%
Velarasikallipalayam	5648	3325	58.87%	2323	41.13%
Velarasivadamalaipalayam	4487	2431	54.18%	2056	45.82%
Perumanallur (CT)	7356	5465	74.29%	1891	25.71%
Palangarai (CT)	17248	12265	71.11%	4983	28.89%
Sembianallur (CT)	7586	5168	68.13%	2418	31.87%
Velayudampalayam (CT)	9192	6377	69.38%	2815	30.62%
Chengappalli (CT)	6587	4292	65.16%	2295	34.84%
Sircar Periapalayam (CT)	5986	4091	68.34%	1895	31.66%
Kanakkampalayam (CT)	12160	9075	74.63%	3085	25.37%
Neripperichal (CT)	53579	38859	72.53%	14720	27.47%

TOWNS/VILLAGES	2011 POPULATION	TOTAL LITERATES	LITERACY RATE	ILLITERATES	ILLITERACY RATE
Chettipalayam (CT)	37620	27931	74.25%	9689	25.75%
Thottipalayam (CT)	40503	30066	74.23%	10437	25.77%
Mannarai (CT)	17261	12393	71.80%	4868	28.20%
Mangalam (CT)	17699	12970	73.28%	4729	26.72%
Andipalayam (CT)	25539	18682	73.15%	6857	26.85%
Iduvai (CT)	8006	5212	65.10%	2794	34.90%
Muthanampalayam (CT)	26014	18366	70.60%	6620	25.45%
Veerapandi (CT)	50301	37904	75.35%	12397	24.65%
Karaipudur (CT)	28602	20710	72.41%	7892	27.59%
Semmipalayam (CT)	8429	6413	76.08%	2016	23.92%
Thirumuruganpoondi (TP)	31528	23348	74.05%	8180	25.95%
Avanashi (TP)	28868	22801	78.98%	6067	21.02%
Uthukuli (TP)	10130	7636	75.38%	2494	24.62%
Samalapuram (TP)	20691	14332	69.27%	6359	30.73%
Palladam (M)	42225	31281	74.08%	10944	25.92%
Velampalayam (M)	87427	68208	78.02%	19219	21.98%
S.Nallur (M)	70115	53886	76.85%	16229	23.15%
Tiruppur (M.Corp)	444352	347351	78.17%	97001	21.83%
Other Urban Centres	290984	221492	76.12%	69492	23.88%
Total Urban Centres	735336	568843	77.36%	166493	22.64%
Total Villages	624478	437321	70.03%	186129	29.81%
Total LPA	1359814	1006164	73.99%	352622	25.93%

LIST OF VILLAGES WITH 2011 WORKERS

TOWNS/VILLAGES	TOTAL WORKERS	WPR	MAIN	MAIN WORKERS %
Agraharaperiapalayam	1497	52.32%	1365	91.18%
Alagumalai	3513	60.28%	3028	86.19%
Anuppatti	889	44.05%	882	99.21%
Chittambalam	2409	66.04%	2034	84.43%
Elavanthi	1378	59.68%	1322	95.94%
Ettiveerampalayam	4150	47.08%	3862	93.06%
Ganapathipalayam	6846	48.82%	6484	94.71%
Ichipatti	4980	52.27%	4825	96.89%
K.Krishnapuram	1536	50.79%	1472	95.83%
Kalipalayam	2643	55.72%	2311	87.44%
Kandiankoil	4099	58.95%	3539	86.34%
Kaniampundi	1532	53.05%	1464	95.56%
Karadibavi	1842	50.51%	1678	91.10%
Kasba Ayyampalayam	1692	49.33%	1372	81.09%
Kattur	3769	55.71%	3398	90.16%
Kethanur	2137	56.28%	2053	96.07%
Kodangipalayam	3595	51.45%	3146	87.51%
Madappur	2699	49.11%	2533	93.85%
Mallegoundenpalayam	832	57.46%	793	95.31%
Mudalipalayam	6879	49.49%	6386	92.83%
Muthampalayam	782	53.45%	669	85.55%
Nachipalayam	1437	51.05%	1368	95.20%
Naranapuram	6577	46.92%	6251	95.04%
North Avanashipalayam	1597	61.73%	1460	91.42%
Panickkampatti	2015	50.60%	1925	95.53%
Paruvai	1889	50.00%	1778	94.12%
Peruntholuvu	2319	50.08%	2003	86.37%
Pongalur	5545	47.44%	5308	95.73%
Pongupalayam	3262	56.13%	2954	90.56%

TOWNS/VILLAGES	TOTAL WORKERS	WPR	MAIN	MAIN WORKERS %
Poomalur	3960	52.07%	3563	89.97%
Pudupalayam	3925	51.17%	3393	86.45%
Puliampatti	1141	55.90%	1093	95.79%
South Avanashipalayam	6130	52.96%	5737	93.59%
Sukkampalayam	2760	62.44%	2290	82.97%
Thekkalur	7507	59.17%	7187	95.74%
Thonguttipalayam	3151	60.60%	2797	88.77%
Ugayanur	2642	52.61%	2545	96.33%
Vadugapalayam	2883	51.53%	2806	97.33%
Vavipalayam	3885	60.06%	3841	98.87%
velampalayam	1873	53.33%	1852	98.88%
Velarasikallipalayam	3187	56.43%	2763	86.70%
Velarasivadamalaipalayam	2643	58.90%	2516	95.19%
Perumanallur (CT)	3413	46.40%	3146	92.18%
Palangarai (CT)	8196	47.52%	7933	96.79%
Sembianallur (CT)	3872	51.04%	3100	80.06%
Velayudampalayam (CT)	4372	47.56%	4199	96.04%
Chengappalli (CT)	4018	61.00%	3095	77.03%
Sircar Periapalayam (CT)	2860	47.78%	2435	85.14%
Kanakkampalayam (CT)	6282	51.66%	6101	97.12%
Nerippericha l (CT)	25763	48.08%	23877	92.68%
Chettipalayam (CT)	17592	46.76%	17169	97.60%
Thottipalayam (CT)	18780	46.37%	18252	97.19%
Mannarai (CT)	8095	46.90%	7718	95.34%
Mangalam (CT)	7393	41.77%	7211	97.54%
Andipalayam (CT)	11967	46.86%	10981	91.76%
Iduvai (CT)	3868	48.31%	3593	92.89%
Muthanampalayam (CT)	11872	45.64%	10369	87.34%
Veerapandi (CT)	22839	45.40%	21532	94.28%
Karaipudur (CT)	14073	49.20%	13028	92.57%

TOWNS/VILLAGES	TOTAL WORKERS	WPR	MAIN	MAIN WORKERS %
Semmipalayam (CT)	4231	50.20%	4053	95.79%
Thirumuruganpoondi (TP)	14090	44.69%	13646	96.85%
Avanashi (TP)	13550	46.94%	12771	94.25%
Uthukuli (TP)	4746	46.85%	4320	91.02%
Samalapuram (TP)	10508	50.79%	10021	95.37%
Palladam (M)	18375	43.52%	16914	92.05%
Velampalayam (M)	40043	45.80%	38419	95.94%
S.Nallur (M)	31826	45.39%	29538	92.81%
Tiruppur (M.Corp)	207358	46.67%	196585	94.80%
Other Urban Centres	133138	45.75%	125629	94.36%
Total Urban Centres	340496	46.30%	322214	94.63%
Total Villages	309513	49.56%	287838	93.00%
Total LPA	650009	47.80%	610052	93.85%

CATEGORY	2011	2012	2013	2014	2015	NEW VEHICLE REGISTRATIONS 2016	2017	2018	2019	2020	CAGR (2011-2020)	SHARE 2020
Adapted Vehicle	0	6	17	45	64	84	117	171	204	260	60.2%	0.05%
Agricultural Tractor	205	379	487	555	637	742	837	942	1073	1202	21.7%	0.22%
Ambulance	12	25	42	61	85	105	123	127	131	135	30.9%	0.03%
Articulated Vehicle	24	38	47	57	66	77	82	105	161	193	26.1%	0.04%
Bus	92	179	224	261	315	385	446	541	653	728	25.8%	0.14%
Camper Van / Trailer (Private Use)	1	2	3	3	3	3	3	3	3	3	13.0%	0.00%
Construction Equipment Vehicle	14	24	28	36	46	55	62	92	149	219	35.7%	0.04%

CATEGORY	2011	2012	2013	2014	2015	NEW VEHICLE REGISTRATIONS 2016 2017 2018	2019	2020	CAGR (2011-2020)	SHARE 2020
Crane Mounted Vehicle	1	1	1	4	5	7 7 10	10	10	29.2%	0.00%
Earth Moving Equipment	71	109	139	166	190	233 274 315	334	340	19.0%	0.06%
Educational Institution Bus	78	168	279	358	420	506 604 706	788	847	30.3%	0.16%
Excavator (NT)	0	0	0	0	0	0 0 0	0	1	0.0%	0.00%
Fire Fighting Vehicle	0	0	0	1	1	1 1 1	1	1	0.0%	0.00%
Goods Carrier	2204	4481	6244	7629	9283	11022 12682 14839	17187	19269	27.2%	3.58%
Maxi Cab	143	258	396	538	642	724 771 804	844	874	22.3%	0.16%
M-Cycle/Scooter	28964	58385	90629	125739	165398	208051 249683 294432	337678	372290	32.8%	69.19%
M-	3	9	26	42	55	70 88 97	106	113	49.7%	0.02%

CATEGORY	2011	2012	2013	2014	2015	NEW VEHICLE REGISTRATIONS 2016 2017 2018	2019	2020	CAGR (2011-2020)	SHARE 2020
Cycle/Scooter-With Side Car										
Mobile Canteen	0	1	1	1	1	1 1 1	1	1	0.0%	0.00%
Mobile Clinic	0	0	1	2	2	2 2 2	2	4	26.0%	0.00%
Moped	10976	22001	32190	41109	50375	58723 64943 70777	76376	80367	24.8%	14.94%
Motor Cab	154	264	372	492	635	786 939 1115	1278	1405	27.8%	0.26%
Motor Car	5775	10886	15740	20694	26152	32262 38559 44801	51094	56621	28.9%	10.52%
Motorised Cycle (CC > 25cc)	0	0	0	0	0	0 0 41	118	205	71.0%	0.04%
Omni Bus	4	8	9	9	11	11 12 12	13	14	14.9%	0.00%
Omni Bus (Private Use)	3	4	4	7	9	9 9 9	9	11	15.5%	0.00%
Private Service Vehicle	66	125	203	285	353	426 493 521	564	612	28.1%	0.11%

CATEGORY	2011	2012	2013	2014	2015	NEW VEHICLE REGISTRATIONS 2016	2017	2018	2019	2020	CAGR (2011-2020)	SHARE 2020
Recovery Vehicle	1	3	4	5	5	5	5	5	5	5	19.6%	0.00%
Three Wheeler (Goods)	1	1	2	3	3	3	3	25	72	131	71.9%	0.02%
Three Wheeler (Passenger)	71	166	354	535	792	1034	1245	1520	1791	1950	44.5%	0.36%
Three Wheeler (Personal)	1	1	3	4	4	4	4	4	5	6	22.0%	0.00%
Tractor (Commercial)	2	4	4	6	9	9	13	13	13	13	23.1%	0.00%
Trailer (Agricultural)	2	14	14	14	14	15	15	16	16	26	33.0%	0.00%
Vehicle Fitted With Compressor	21	30	39	44	49	56	63	67	75	79	15.9%	0.01%

CATEGORY	2011	2012	2013	2014	2015	NEW VEHICLE REGISTRATIONS 2016 2017 2018	2019	2020	CAGR (2011-2020)	SHARE 2020
Vehicle Fitted With Generator	1	3	3	3	3	3 3 3	3	3	13.0%	0.00%
Vehicle Fitted With Rig	11	19	40	49	61	68 92 95	103	108	28.9%	0.02%
Total	48901	97594	147545	198757	255688	315482 372181 432212	490860	538046	30.5%	100.00%